

**UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

SOLAS OLED LTD.,

*Plaintiff,*

vs.

SAMSUNG DISPLAY CO., LTD.,

*Defendant.*

CASE NO. 2:21-cv-00104

**Complaint for Patent Infringement**

**JURY DEMANDED**

**Complaint for Patent Infringement**

Plaintiff Solas OLED Ltd. (“Solas”) files this complaint against Samsung Display Co., Ltd. (“Defendant”), alleging infringement of U.S. Patent Nos. 7,499,042; 7,663,615; 7,446,338; 6,072,450 (“Patents-in-Suit”). The Accused Products are the OLED panel displays made, used, offered for sale, sold, imported by Defendant in the United States and supplied by Defendant to its customers and integrated into electronic devices sold in the United States.

**Plaintiff Solas OLED and the Patents-in-Suit.**

1. Plaintiff Solas is a technology licensing company organized under the laws of Ireland, with its headquarters at The Hyde Building, Suite 23, The Park, Carrickmines, Dublin 18, Ireland.

2. Solas is the owner of U.S. Patent No. 7,499,042, entitled “Display Device, Data Driving Circuit, and Display Panel Driving Method,” which issued March 3, 2009 (the “’042 patent”). A copy of the ’042 patent is attached to this complaint as Exhibit 1.

3. Solas is the owner of U.S. Patent No. 7,663,615, entitled “Light Emission Drive Circuit and Its Drive Control Method and Display Unit and Its Display Drive Method,” which

issued February 16, 2010 (the “’615 patent”). A copy of the ’615 patent is attached to this complaint as Exhibit 2.

4. Solas is the owner of U.S. Patent No. 7,446,338, entitled “Display Panel,” which issued November 4, 2008 (the “’338 patent”). A copy of the ’338 patent is attached to this complaint as Exhibit 3.

5. Solas is the owner of U.S. Patent No. 6,072,450, entitled “Display Apparatus,” which issued June 6, 2000 (the “’450 patent”). A copy of the ’450 patent is attached to this complaint as Exhibit 4.

#### **Defendant and the Accused Products.**

6. On information and belief, Defendant Samsung Display Co., Ltd. is a corporation organized under the laws of South Korea, with its principal place of business at 181, Samsung-Ro, Tangjeong-Myeon, Asan-City, Chungcheongnam-Do, 336-741, South Korea..

7. The Accused Products include active-matrix organic light-emitting diode (AMOLED) panel displays made, used, offered for sale, sold, imported by Defendant in the United States and supplied by Defendant to its customers and integrated into electronic devices sold in the United States, including without limitation the HP laptop and tablet devices, Dell laptop and tablet devices, Google mobile phone devices, Samsung Galaxy mobile phones and tablet devices, and Apple iPhone laptop and mobile phone devices.

#### **Jurisdiction and Venue.**

8. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has original subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

9. This Court has personal jurisdiction over Defendant in this action because

Defendant has established minimum contacts with the United States as a whole such that the exercise of jurisdiction would not offend traditional notions of fair play and substantial justice. Defendant has purposefully directed activities at the United States, in particular, directing Accused Products for sale to customers and distributors within the United States (including within this District) and engaging in sales and marketing efforts to generate and support such sales. Defendant has committed acts of infringement of Solas's patents giving rise to this action, such as by supplying to customers the Accused Products that are integrated in products sold in this District, including without limitation the Samsung Galaxy tablets and phones, HP Spectre x360 laptops, Dell XPS 15 laptops, Dell Venue tablets, Gigabyte Aero 15 laptops, Google Pixel phones Apple MacBook Pro laptops and iPhones. Defendant, directly and through subsidiaries, intermediaries, and third parties, has committed and continues to commit acts of infringement in this District by, among other things, making, using, offering to sell, selling, and importing products that infringe the Asserted Patents.

10. Venue is proper in this District under 28 U.S.C. §§ 1391 and 1400(b). Defendant is a foreign corporation. Venue is proper as to a foreign defendant in any district. 28 U.S.C. § 1391(c)(3).

**Count 1 – Claim for infringement of the '042 patent.**

11. Solas incorporates by reference each of the allegations in paragraphs 1–10 above and further alleges as follows:

12. On March 3, 2009, the United States Patent and Trademark Office issued U.S. Patent No. 7,499,042, entitled “Display Device, Data Driving Circuit, and Display Panel Driving Method.” Ex. 1.

13. Solas is the owner of the '042 patent with full rights to pursue recovery of royalties for damages for infringement, including full rights to recover past and future damages.

14. Each claim of the '042 patent is valid, enforceable, and patent-eligible.

15. Solas and its predecessors in interest have satisfied the requirements of 35 U.S.C. § 287(a) with respect to the '042 patent, and Solas is entitled to damages for Defendant's past infringement.

16. Defendant has directly infringed (literally and equivalently) and induced others to infringe the '042 patent by making, using, selling, offering for sale, or importing products that infringe the claims of the '042 patent and by inducing others to infringe the claims of the '042 patent without a license or permission from Solas.

17. On information and belief, Defendant makes, offers for sale, and sells certain infringing products such as OLED display panels to customers, who integrate the infringing products into products that are sold to consumers, such as laptop computers and mobile phones. For example, claim 1 of the '042 patent claims a display device as follows.

**[preamble] “A display device comprising:”**

18. The Accused Products integrated into infringing products are “display devices” for displaying information in, for example, Google Pixel phones, Samsung Galaxy phones, and HP Spectre laptops.





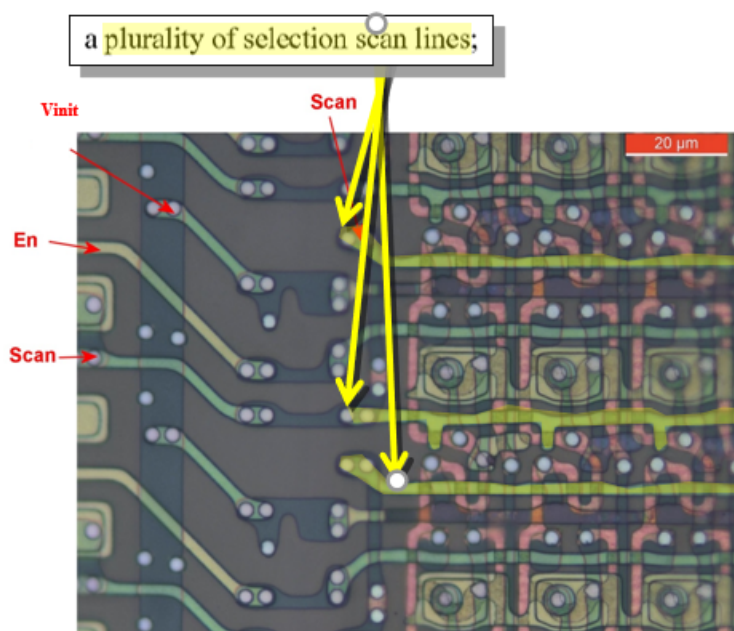
*Samsung Galaxy S8*



*Samsung Galaxy S9*

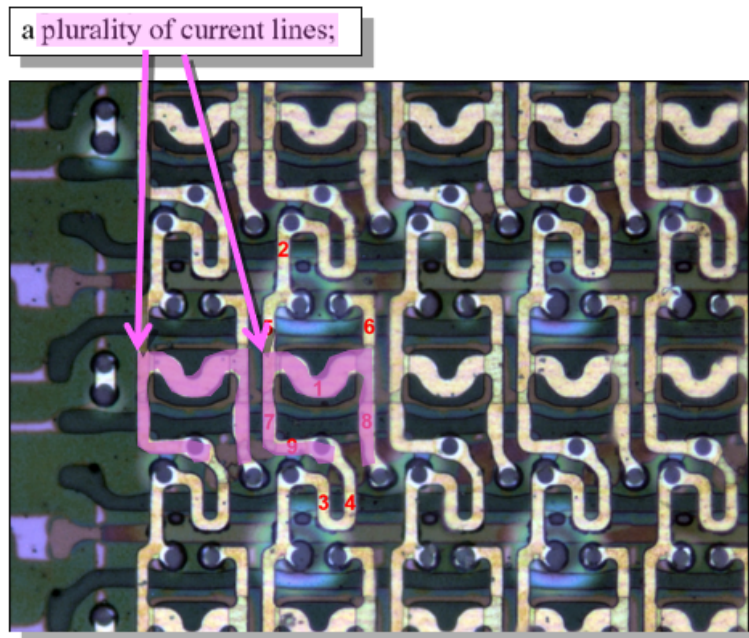
[1a] “a plurality of selection scan lines;”

19. The Accused Products have a plurality of selection scan lines:



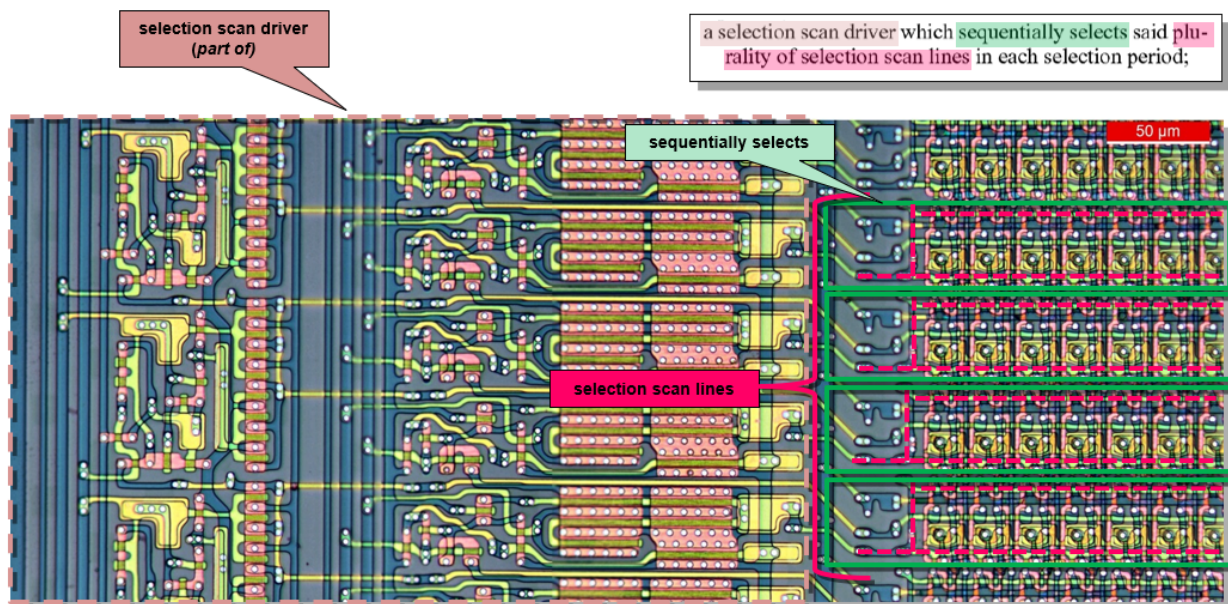
[1b] “a plurality of current lines;”

20. The Accused Products’ AMOLED display panels have a plurality of current lines:

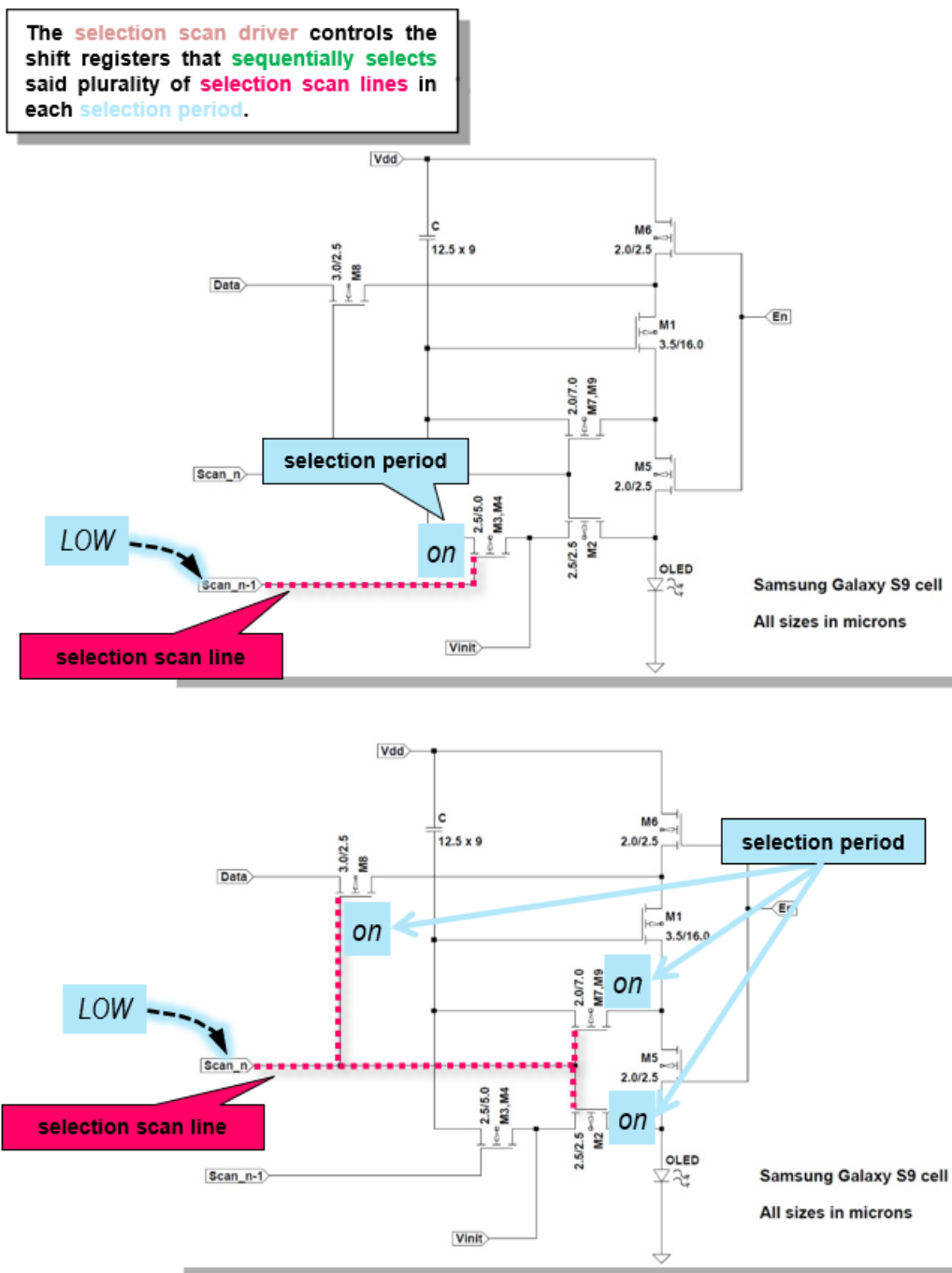


[1c] “a selection scan driver which sequentially selects said plurality of selection scan lines in each selection period;”

21. The Accused Products have a selection scan driver which sequentially selects said plurality of selection scan lines in each selection period.



22. In the Accused Products, the selection scan driver controls the shift registers that sequentially selects said plurality of selection scan lines in each selection period.

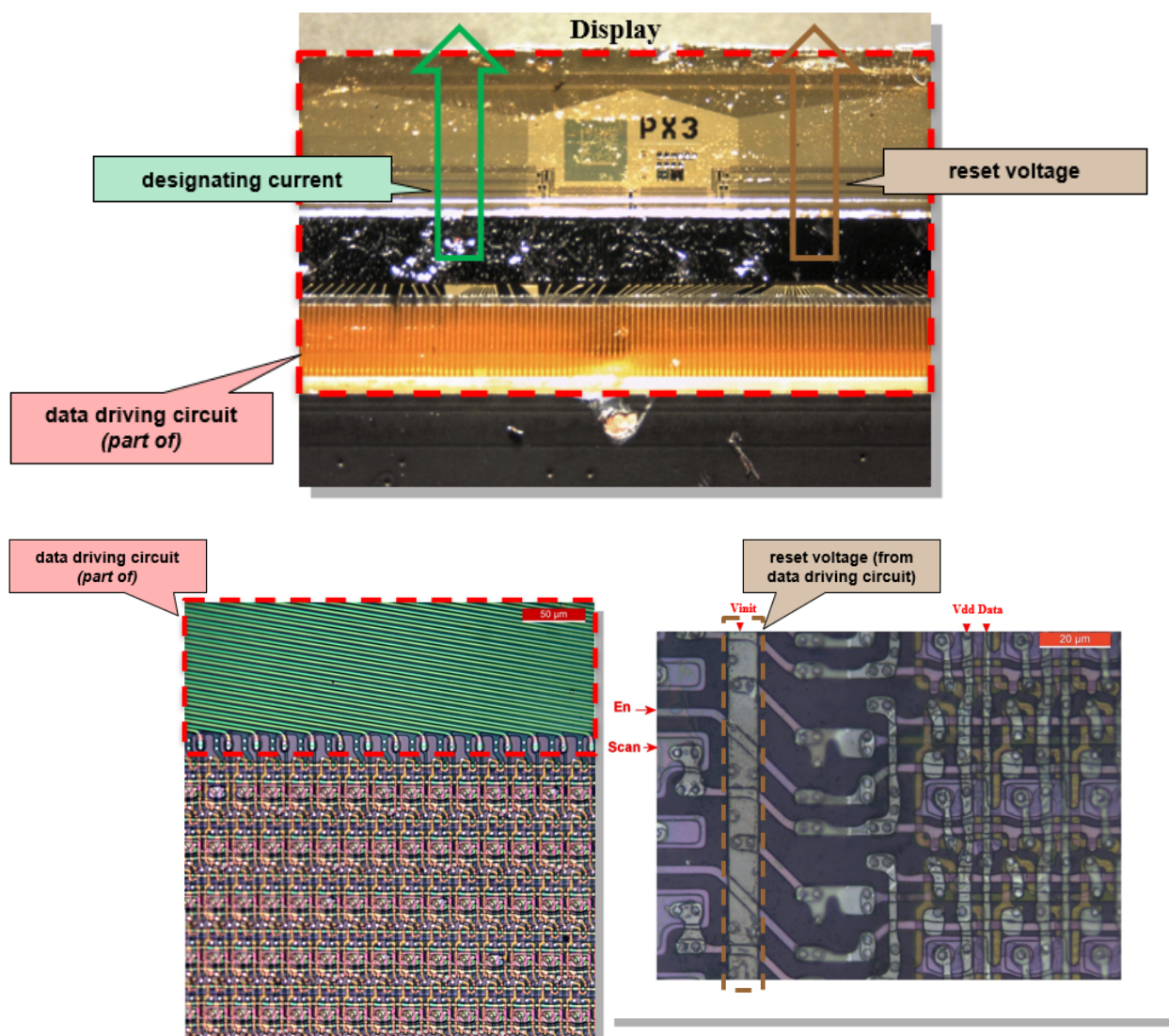


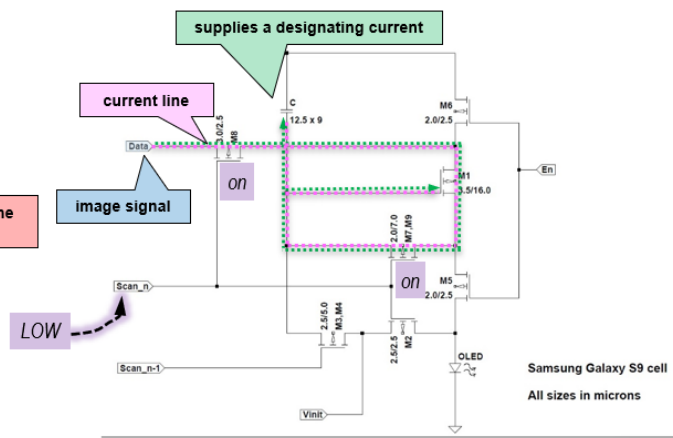
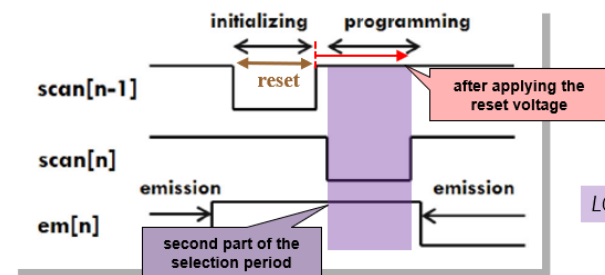
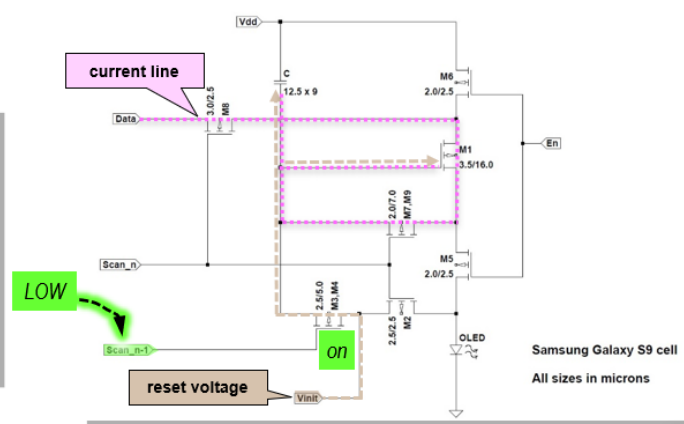
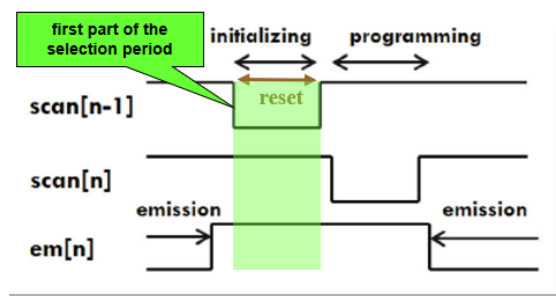
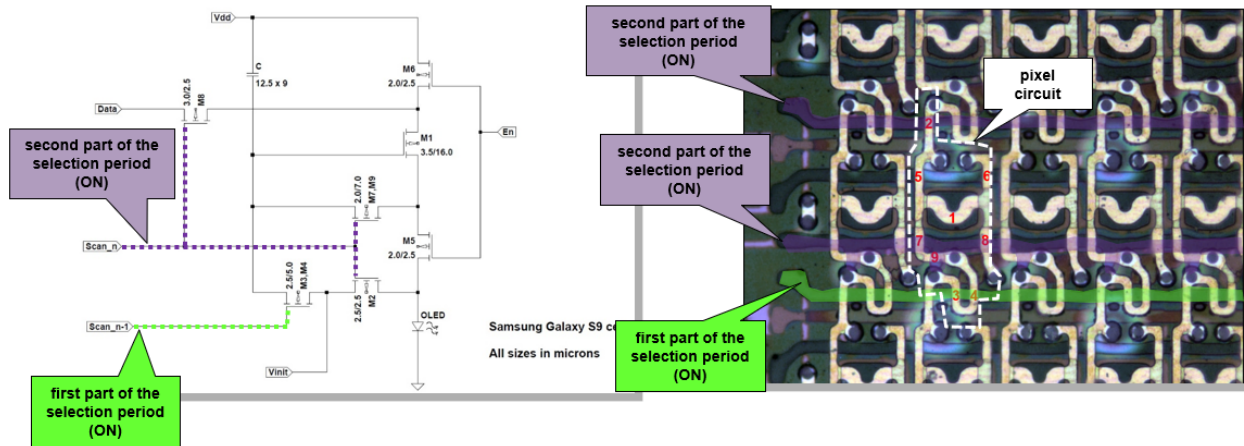
[1d] “a data driving circuit which applies a reset voltage to said plurality of current lines in a first part of the selection period, and supplies a designating current having

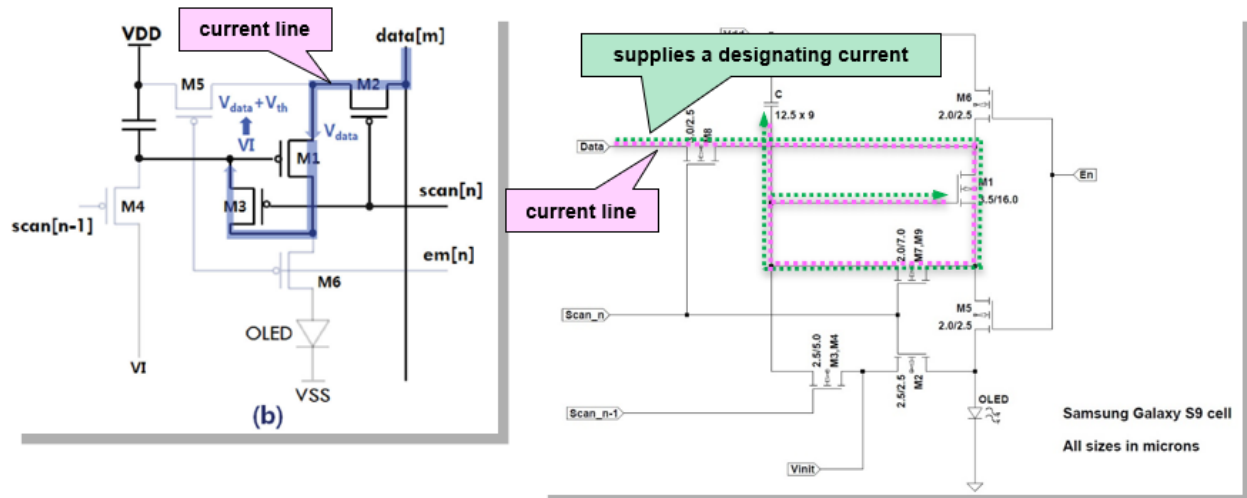


a current value corresponding to an image signal to said plurality of current lines in a second part of the selection period after applying the reset voltage in the selection period; and”

23. The Accused Products have a data driving circuit which applies a reset voltage to said plurality of current lines in a first part of the selection period, and supplies a designating current having a current value corresponding to an image signal to said plurality of current lines in a second part of the selection period after applying the reset voltage in the selection period:



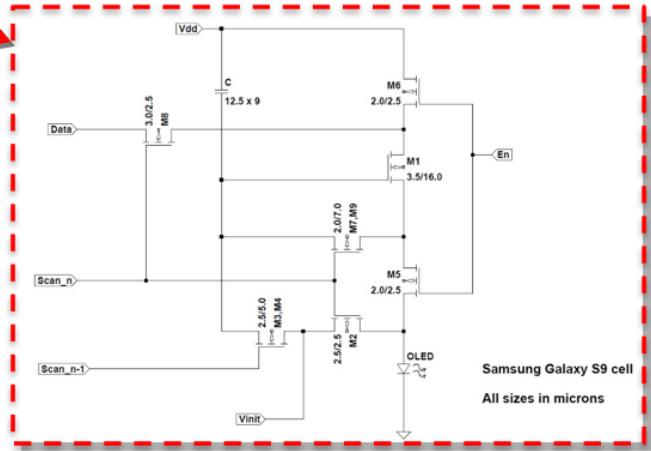




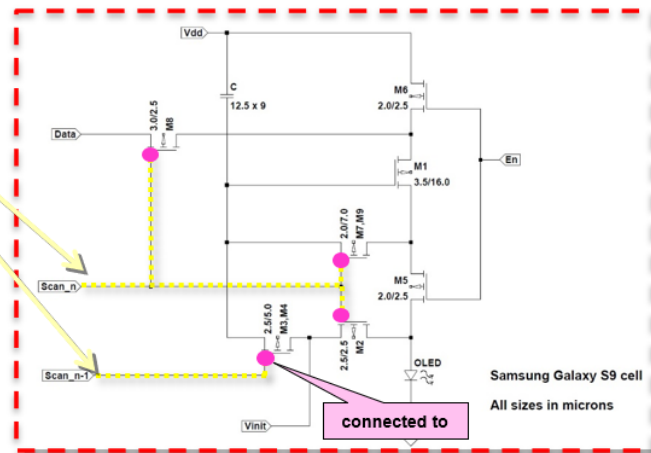
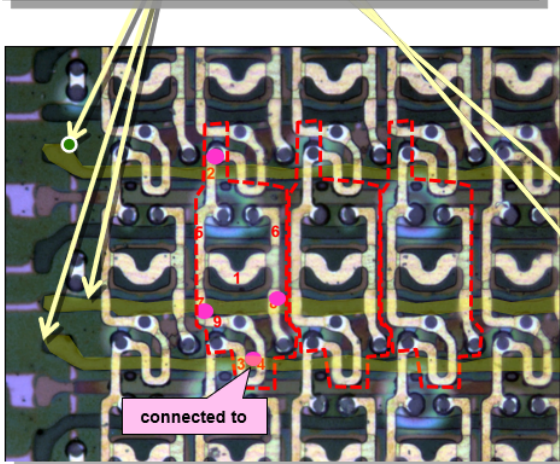
**[1e] “a plurality of pixel circuits which are connected to said plurality of selection scan lines and said plurality of current lines, and supply a driving current having a current value corresponding to the current value of the designating current which flows through said plurality of current lines;”**

24. The Accused Products have a plurality of pixel circuits which are connected to said plurality of selection scan lines and said plurality of current lines, and supply a driving current having a current value corresponding to the current value of the designating current which flows through said plurality of current lines:

a plurality of pixel circuits which are connected to said plurality of selection scan lines and said plurality of current lines, and supply a driving current having a current value corresponding to the current value of the designating current which flows through said plurality of current lines;

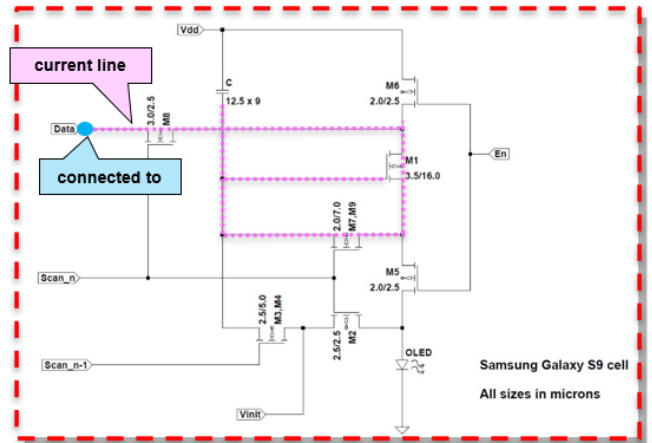


a plurality of pixel circuits which are connected to said plurality of selection scan lines and said plurality of current lines, and supply a driving current having a current value corresponding to the current value of the designating current which flows through said plurality of current lines;

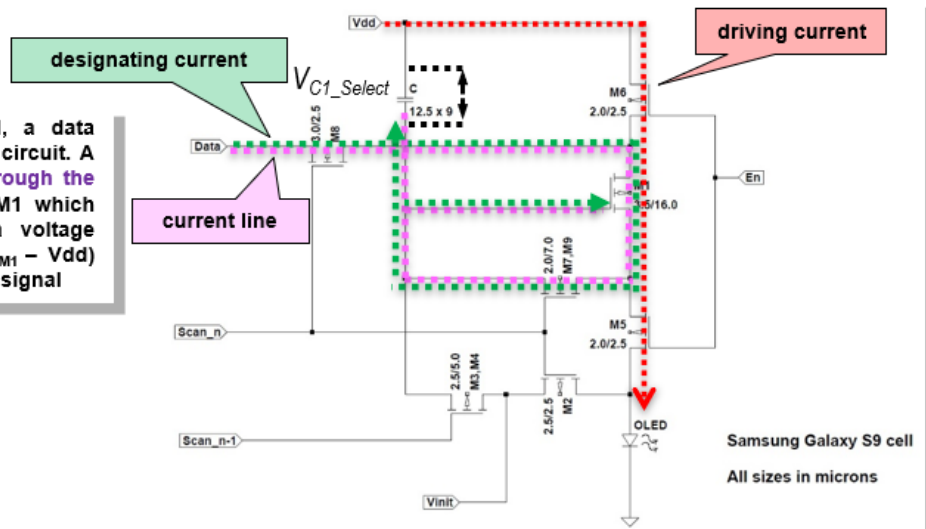




a plurality of pixel circuits which are connected to said plurality of selection scan lines and said plurality of current lines, and supply a driving current having a current value corresponding to the current value of the designating current which flows through said plurality of current lines;



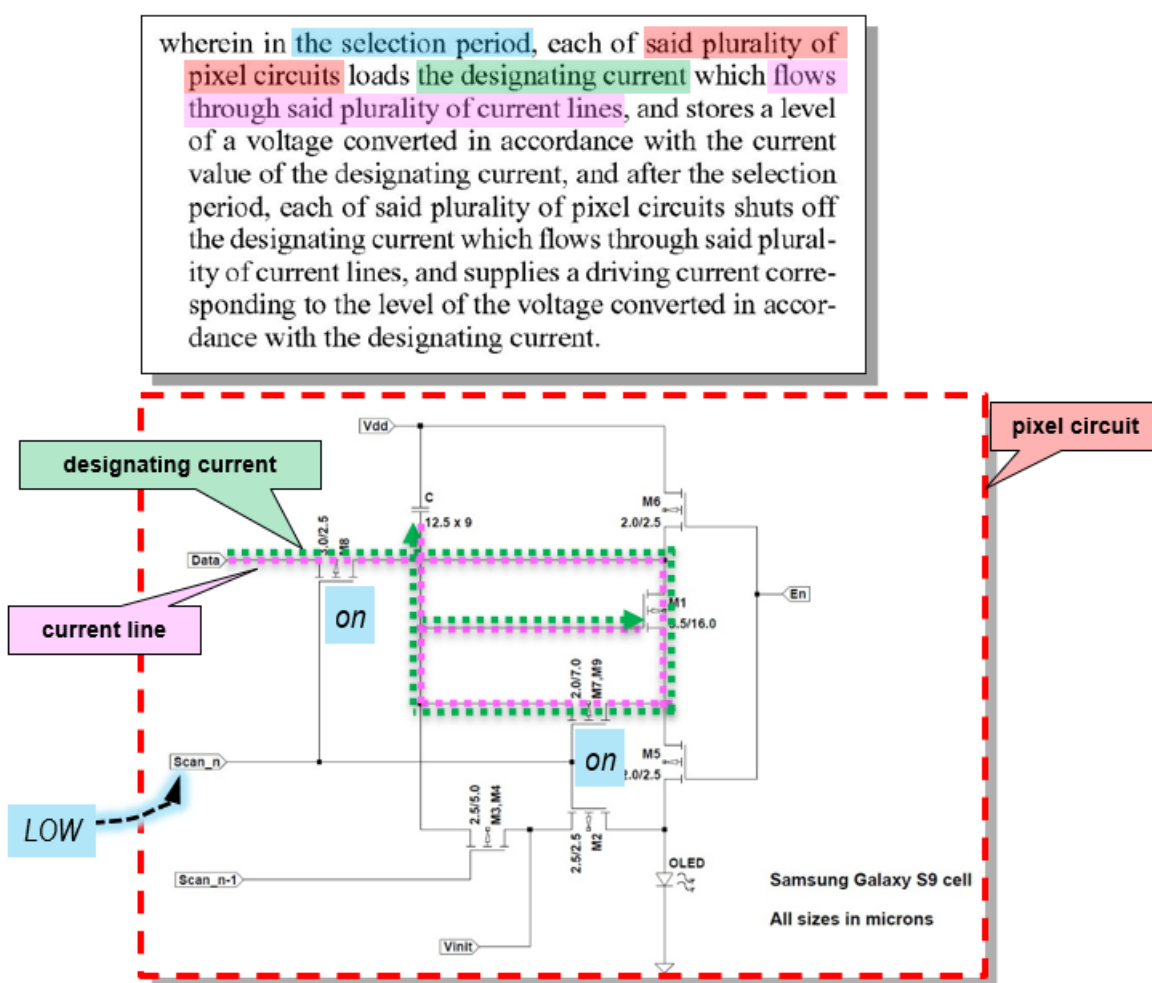
During the selection period, a data signal is applied to the pixel circuit. A designating current flows through the current line to the gate of M1 which charges capacitor C1 to a voltage value  $V_{C1\_Select} = (V_{Data} + V_{TH\_M1} - V_{dd})$  that corresponds to an image signal



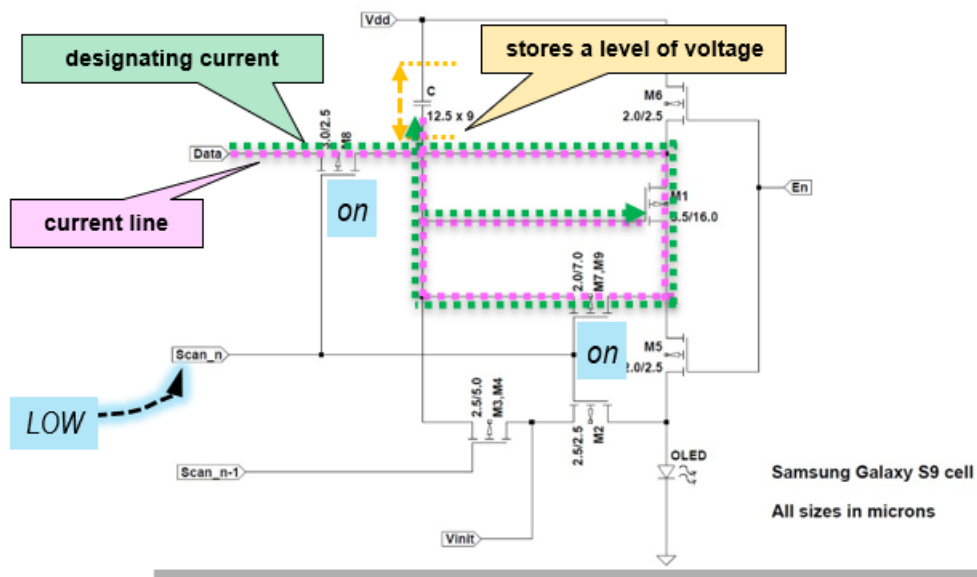
[1f] “wherein in the selection period, each of said plurality of pixel circuits loads the designating current which flows through said plurality of current lines, and stores a level of a voltage converted in accordance with the current value of the designating current, and after the selection period, each of said plurality of pixel circuits shuts off the designating current which flows through said plurality of current lines, and supplies a driving current corresponding to the level of the voltage converted in accordance with the designating current.”



25. The Accused Products have a selection period wherein each of said plurality of pixel circuits loads the designating current which flows through said plurality of current lines, and stores a level of a voltage converted in accordance with the current value of the designating current, and after the selection period, each of said plurality of pixel circuits shuts off the designating current which flows through said plurality of current lines, and supplies a driving current corresponding to the level of the voltage converted in accordance with the designating current:

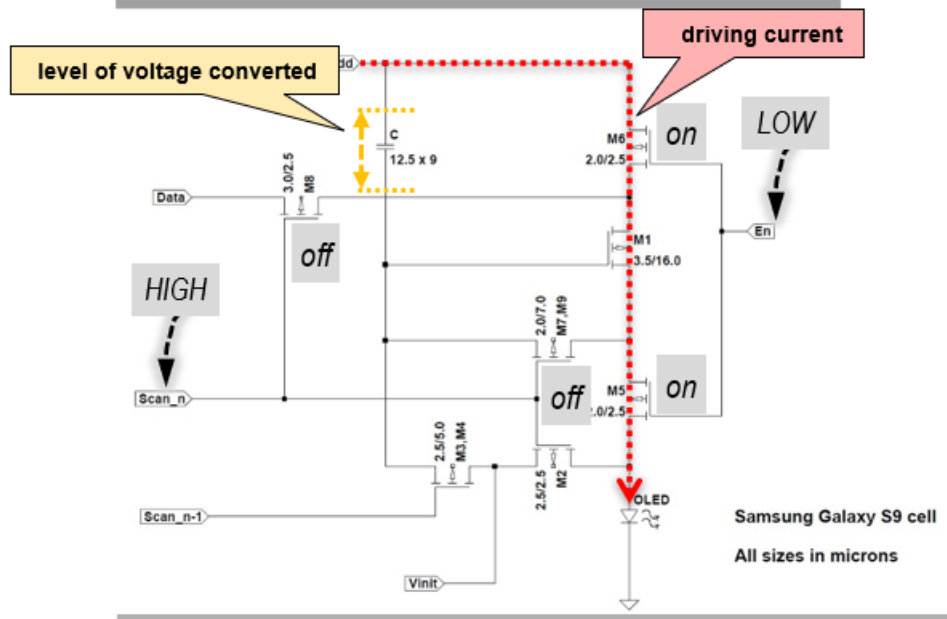


wherein in the selection period, each of said plurality of pixel circuits loads the designating current which flows through said plurality of current lines, and stores a level of a voltage converted in accordance with the current value of the designating current, and after the selection period, each of said plurality of pixel circuits shuts off the designating current which flows through said plurality of current lines, and supplies a driving current corresponding to the level of the voltage converted in accordance with the designating current.





wherein in the selection period, each of said plurality of pixel circuits loads the designating current which flows through said plurality of current lines, and stores a level of a voltage converted in accordance with the current value of the designating current, and after the selection period, each of said plurality of pixel circuits shuts off the designating current which flows through said plurality of current lines, and supplies a driving current corresponding to the level of the voltage converted in accordance with the designating current.



26. Defendant also knowingly and intentionally induces and contributes to infringement of the '042 patent in violation of 35 U.S.C. §§ 271(b) and 271(c). Through the filing and service of this Complaint, Defendant has had knowledge of the '042 Patent and the infringing nature of the Accused Products. On information and belief, Defendant has had knowledge of the '042 patent since around November 2019, after Solas filed suit against customers of Defendant in the United States District Court for the Western District of Texas. Despite this knowledge of the '042 patent, Defendant continues to actively encourage and instruct its customers to use and integrate the accused products in ways that directly infringe the '042 patent. Defendant does so knowing and intending that its customers will commit these

infringing acts. Defendant also continues to make, use, offer for sale, sell, and/or import the accused products, despite its knowledge of the '042 patent, thereby specifically intending for and inducing its customers to infringe the '042 patent through the customers' normal and customary use of the Accused Products.

27. Defendant has infringed multiple claims of the '042 patent, including independent claim 1. By way of example only, the Accused Product integrated into the Samsung Galaxy phones infringes an exemplary claim of the '042 patent, as in the description set forth above, which Solas provides without the benefit of information about the Accused Products obtained through discovery.

28. Defendant has known how the Accused Products are made and has known, or has been willfully blind to the fact, that making, using, offering to sell, and selling the Accused Products to its customers, who integrate the Accused Products into products imported into and sold within the United States, would constitute willful infringement of the '042 patent. Those products imported into and sold within the United States include, without limitation, Samsung Galaxy tablets and phones, Apple iPhones and MacBook Pro laptops, Google Pixel phones, Dell Venue tablets, and HP Spectre laptops.

29. Defendant has induced, and continues to induce, infringement of the '042 patent by actively encouraging others (including its customers) to use, offer to sell, sell, and import the Accused Products and devices that integrate the Accused Products. On information and belief, these acts include providing information and instructions on the use and integrate the Accused Products; providing information, education and instructions to its customers; providing the Accused Products to customers; and indemnifying patent infringement within the United States.

30. Solas has been damaged by Defendant's infringement of the '042 patent and is entitled to damages as provided for in 35 U.S.C. § 284, including reasonable royalty damages.

**Count 2 – Claim for infringement of the '615 patent.**

31. Solas incorporates by reference each of the allegations in paragraphs 1–30 above and further alleges as follows:

32. On February 16, 2010, the United States Patent and Trademark Office issued U.S. Patent No. U.S. Patent No. 7,663,615, entitled "Light Emission Drive Circuit and Its Drive Control Method and Display Unit and Its Display Drive Method." Ex. 2.

33. Solas is the owner of the '615 patent with full rights to pursue recovery of royalties for damages for infringement, including full rights to recover past and future damages.

34. Each claim of the '615 patent is valid, enforceable, and patent-eligible.

35. Solas and its predecessors in interest have satisfied the requirements of 35 U.S.C. § 287(a) with respect to the '615 patent, and Solas is entitled to damages for HP's past infringement.

36. Solas and its predecessors in interest have satisfied the requirements of 35 U.S.C. § 287(a) with respect to the '615 patent, and Solas is entitled to damages for Defendant's past infringement.

37. Defendant has directly infringed (literally and equivalently) and induced others to infringe the '615 patent by making, using, selling, offering for sale, or importing products that infringe the claims of the '615 patent and by inducing others to infringe the claims of the '615 patent without a license or permission from Solas.

38. On information and belief, Defendant makes, offers for sale, and sells certain infringing products such as OLED display panels to customers, such as Samsung Electronics

Co., Ltd., HP, Dell, Gigabyte, Google, and Apple, who integrate the infringing products into products that are sold to consumers, such as laptop computers and mobile phones. For example, claim 11 of the '615 patent claims a display device as follows.

**[preamble] “A display unit comprising:”**

39. The Accused Products integrated into infringing products are “display units” for displaying information in, for example, Google Pixel phones, Dell Venue tablets, Apple iPhones, Samsung Galaxy phones, and HP Spectre laptops.



*Samsung Galaxy S8*



*Samsung Galaxy S9*



**HP Spectre X360**



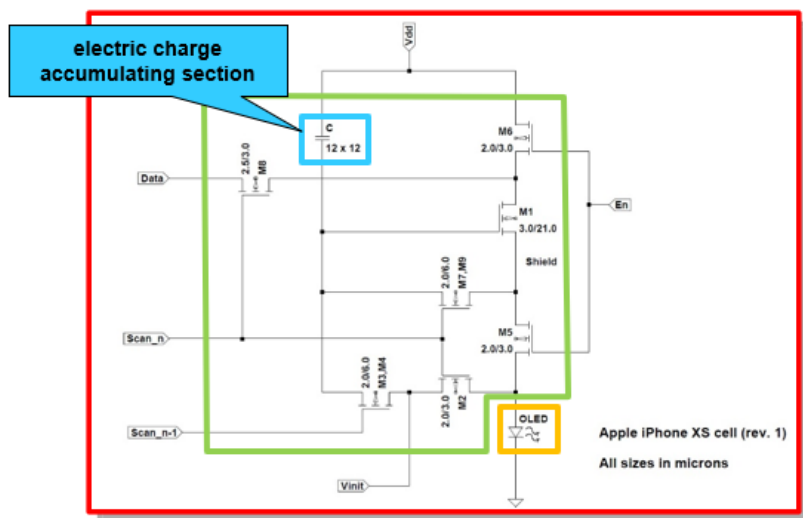
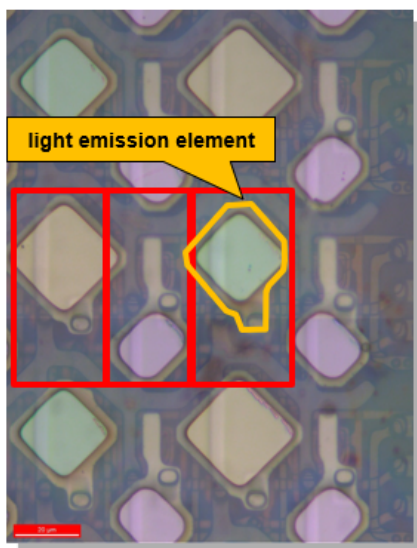
**Apple iPhone XS**

**[11a] “a plurality of display pixels each of which includes a light emission element and a light emission drive circuit having an electric charge accumulating section for accumulating electric charges based on a gradation sequence signal to designate a luminance gradation sequence in accordance with display data, a light emission control section for generating a light emission drive current having a predetermined current value in accordance with the electric charges accumulated in the electric charge accumulating section and supplying the light emission drive current to the light emission element, a writing control section for controlling a supplying state of the electric charges based on the gradation sequence signal to the electric charge accumulating section, and a voltage control section for controlling a drive voltage for making the light emission control section perform the operation, respectively;”**

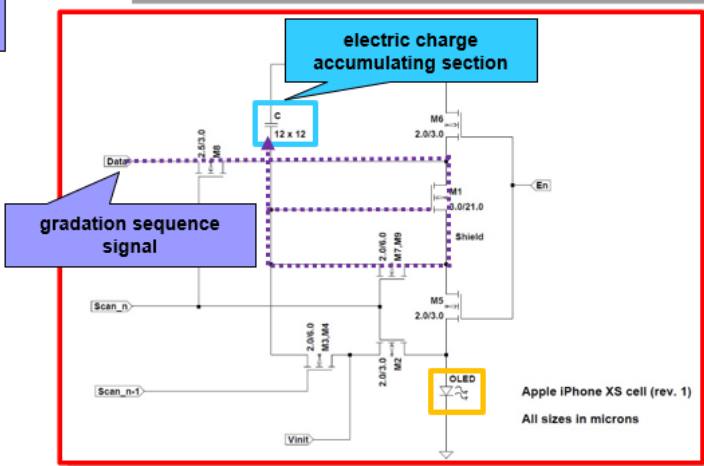
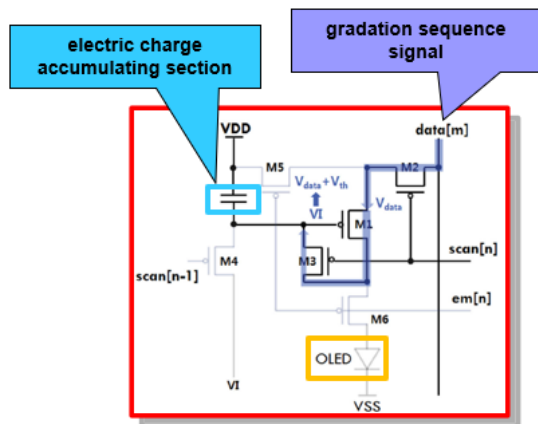
40. The Accused Products have a plurality of display pixels each of which includes a light emission element and a light emission drive circuit having an electric charge accumulating section for accumulating electric charges based on a gradation sequence signal to designate a luminance gradation sequence in accordance with display data, a light emission control section for generating a light emission drive current having a predetermined current value in accordance with the electric charges accumulated in the electric charge accumulating section and supplying the light emission drive current to the light emission element, a writing control section for controlling a supplying state of the electric charges based on the gradation sequence signal to the electric charge accumulating section, and a voltage control section for controlling a drive voltage for making the light emission control section perform the operation, respectively:



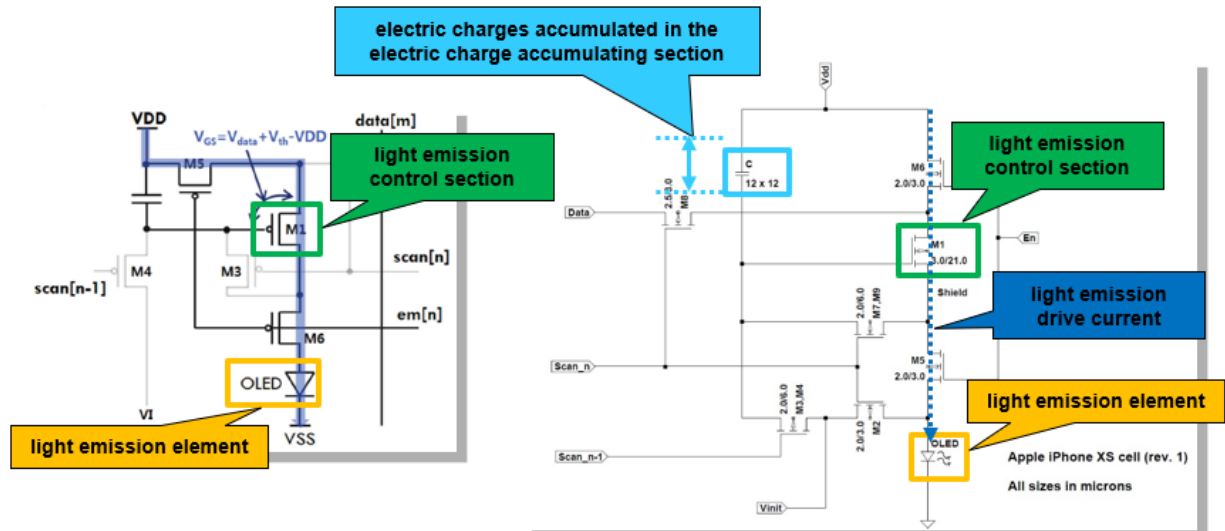
a plurality of display pixels each of which includes a light emission element and a light emission drive circuit having an electric charge accumulating section for accumulating electric charges based on a gradation sequence signal to designate a luminance gradation sequence in accordance with display data,



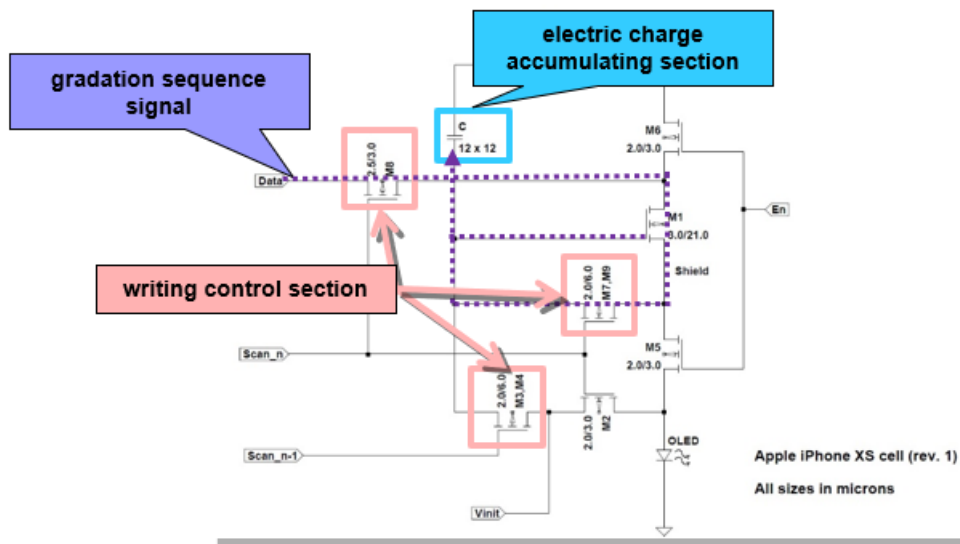
a plurality of display pixels each of which includes a light emission element and a light emission drive circuit having an electric charge accumulating section for accumulating electric charges based on a gradation sequence signal to designate a luminance gradation sequence in accordance with display data,

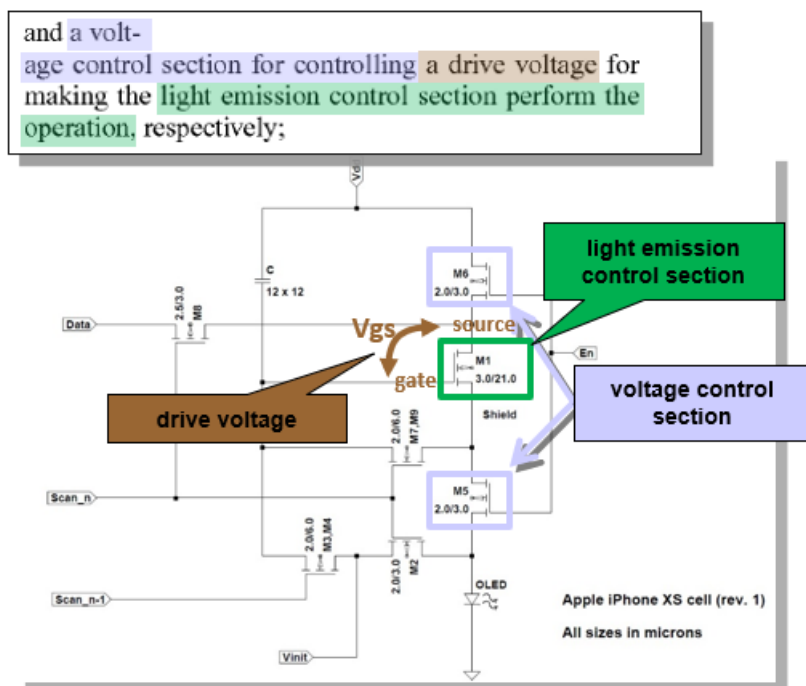


a light emission control section for generating a light emission drive current having a predetermined current value in accordance with the electric charges accumulated in the electric charge accumulating section and supplying the light emission drive current to the light emission element,



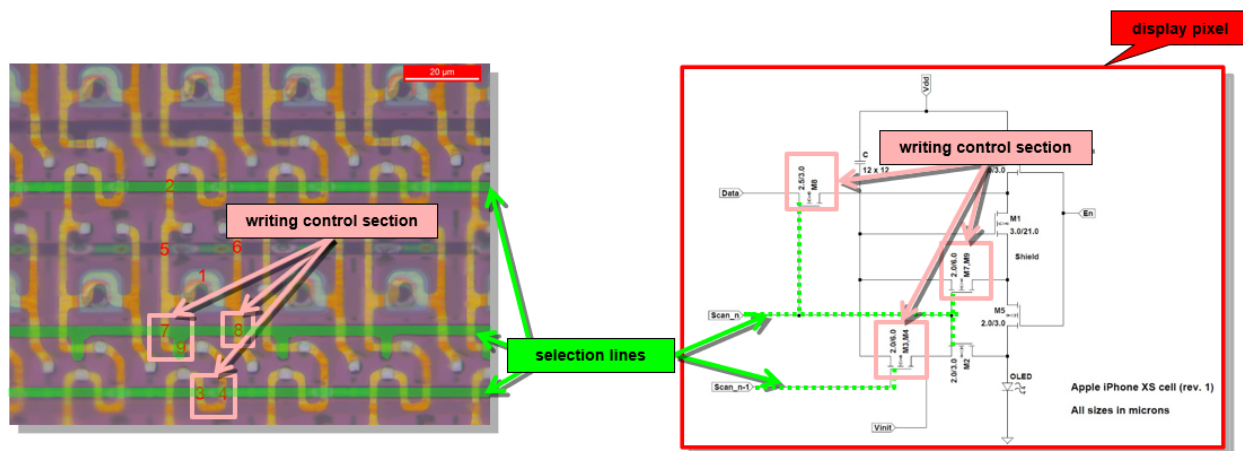
a writing control section for controlling a supplying state of the electric charges based on the gradation sequence signal to the electric charge accumulating section,





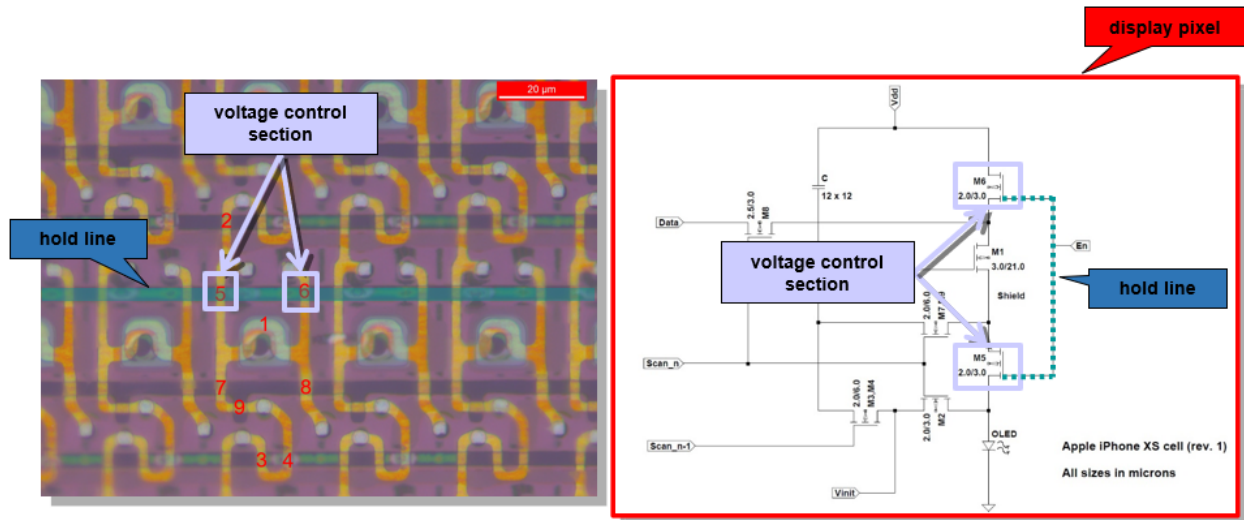
[11b] “selection lines in which writing control signals for controlling the operation state of the writing control sections of the display pixels are applied;”

41. The Accused Products have selection lines in which writing control signals for controlling the operation state of the writing control sections of the display pixels are applied:



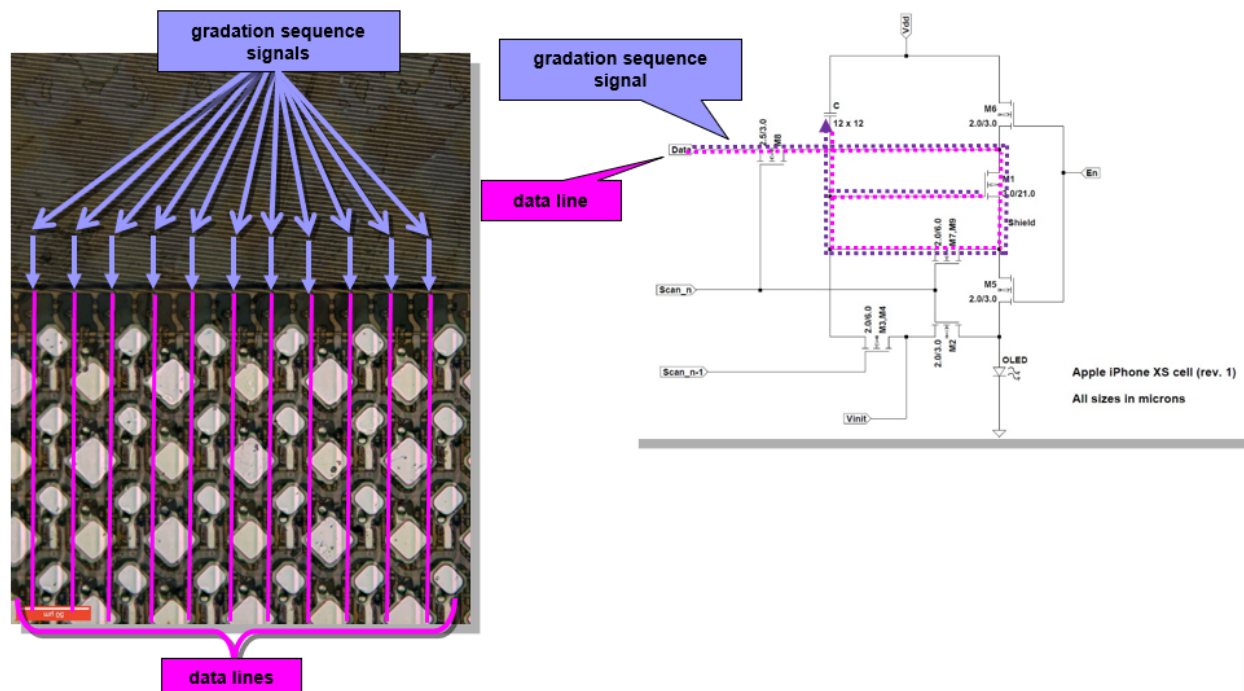
[11c] “hold lines in which voltage control signals for controlling the operation state of the voltage control sections of the display pixels are applied;”

42. The Accused Products have hold lines in which voltage control signals for controlling the operation state of the voltage control sections of the display pixels are applied:



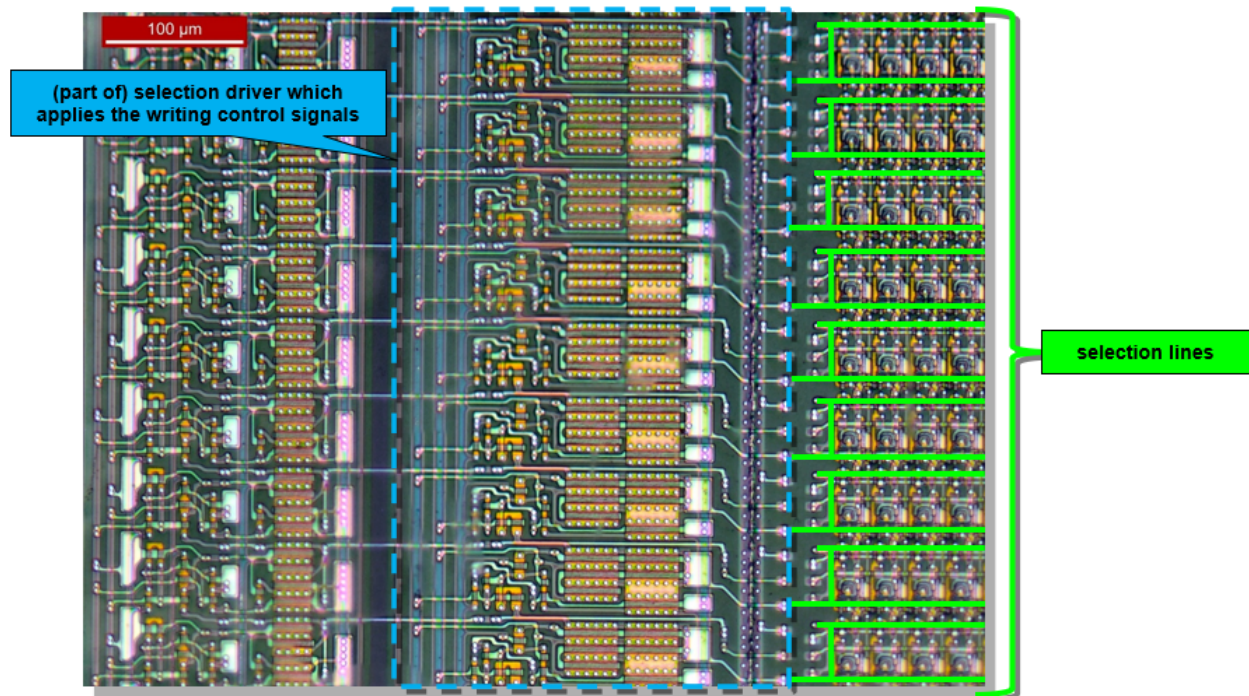
[1d] "data lines to which the gradation sequence signals are supplied;"

43. The Accused Products have data lines to which the gradation sequence signals are supplied:



[11e] “a selection driver which applies the writing control signals in the selection lines;”

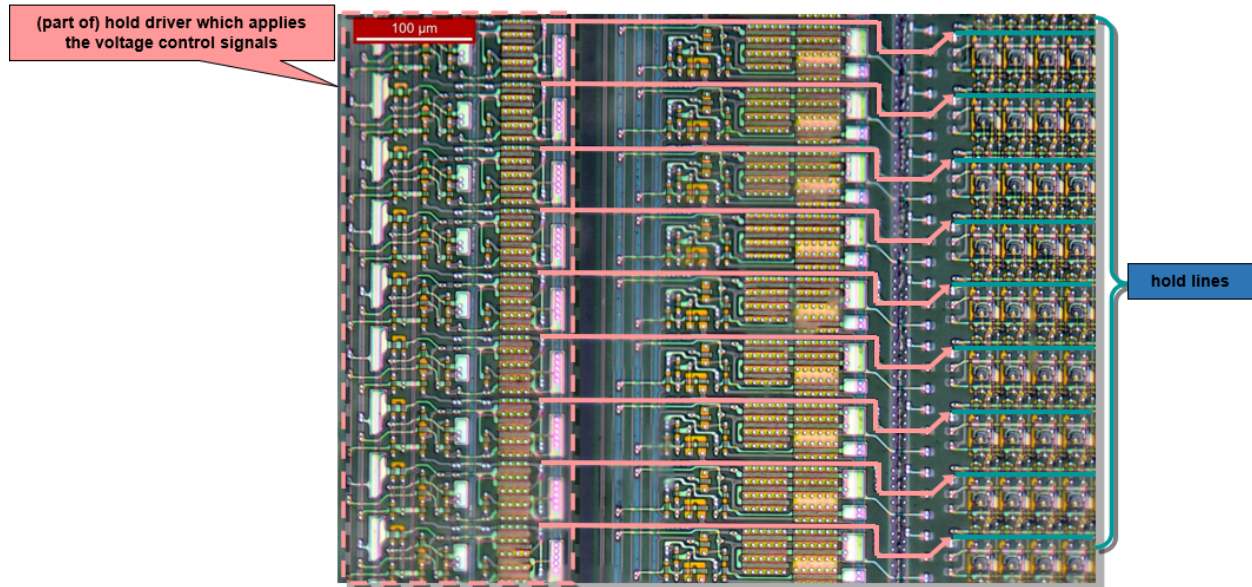
44. The Accused Products have a selection driver which applies the writing control signals in the selection lines:



[11f] “a hold driver which applies the voltage control signals in the hold lines; and”

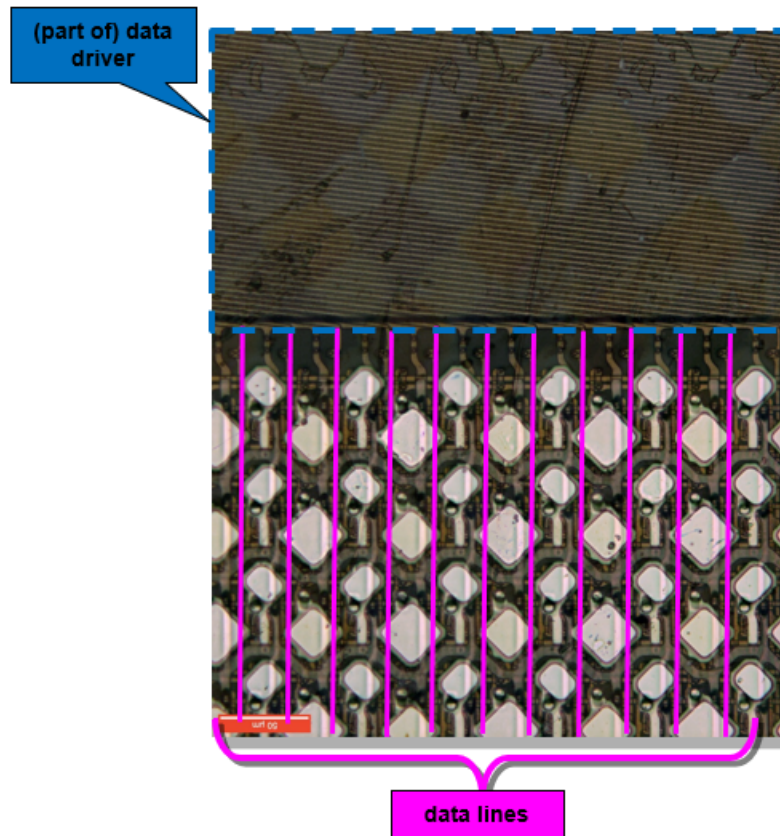
45. The Accused Products have a hold driver which applies the voltage control signals in the hold lines:





[11g] “a data driver which supplies the gradation sequence signals to the data lines;”

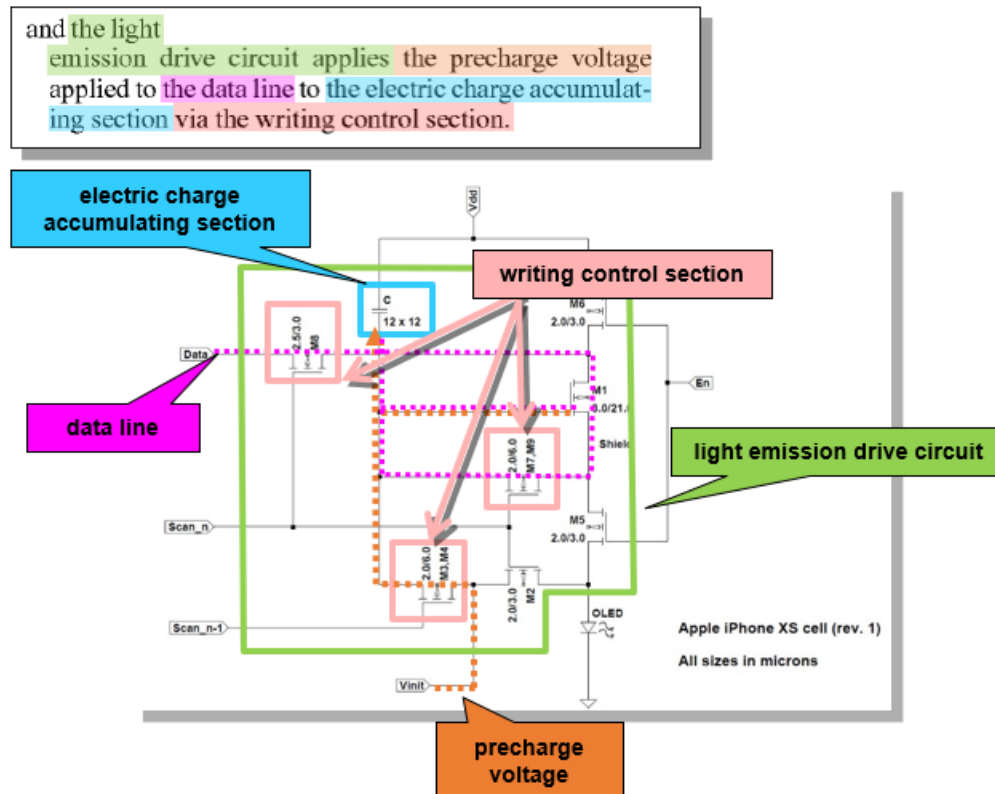
46. The Accused Products have a data driver which supplies the gradation sequence signals to the data lines:



[11h] “wherein, with respect to each of the display pixels, the data driver applies a precharge voltage exceeding a threshold value of the drive transistor to the data line, and the light emission drive circuit applies the precharge voltage applied to the data line to the electric charge accumulating section via the writing control section.”







47. Defendant also knowingly and intentionally induces and contributes to infringement of the '615 patent in violation of 35 U.S.C. §§ 271(b) and 271(c). Through the filing and service of this Complaint, Defendant has had knowledge of the '615 Patent and the infringing nature of the Accused Products. On information and belief, Defendant has had knowledge of the '615 patent since around November 2019, after Solas filed suit against customers of Defendant in this District. Despite this knowledge of the '615 Patent, Defendant continues to actively encourage and instruct its customers to use and integrate the accused products in ways that directly infringe the '615 patent. Defendant does so knowing and intending that its customers will commit these infringing acts. Defendant also continues to make, use, offer for sale, sell, and/or import the accused products, despite its knowledge of the '615 patent, thereby specifically intending for and inducing its customers to infringe the '615 patent through the customers' normal and customary use of the Accused Products.

48. Defendant has infringed multiple claims of the '615 patent, including independent claim 11. By way of example only, the Accused Product integrated into the Apple iPhone XS infringes an exemplary claim of the '615 patent, as in the description set forth above, which Solas provides without the benefit of information about the Accused Products obtained through discovery.

49. Defendant has known how the Accused Products are made and has known, or has been willfully blind to the fact, that making, using, offering to sell, and selling the Accused Products to its customers, who integrate the Accused Products into products imported into and sold within the United States, would constitute willful infringement of the '615 patent.

50. Defendant has induced, and continues to induce, infringement of the '615 patent by actively encouraging others (including its customers) to use, offer to sell, sell, and import the Accused Products and devices that integrate the Accused Products. On information and belief, these acts include providing information and instructions on the use and integrate the Accused Products; providing information, education and instructions to its customers; providing the Accused Products to customers; and indemnifying patent infringement within the United States.

51. Solas has been damaged by HP's infringement of the '615 patent and is entitled to damages as provided for in 35 U.S.C. § 284, including reasonable royalty damages.

**Count 3 – Claim for infringement of the '338 patent.**

52. Solas incorporates by reference each of the allegations in paragraphs 1–51 above and further alleges as follows:

53. On November 4, 2008, the United States Patent and Trademark Office issued U.S. Patent No. 7,446,338, entitled "Display Panel." Ex. 3.

54. Solas is the owner of the '338 patent with full rights to pursue recovery of royalties for damages for infringement, including full rights to recover past and future damages.

55. Each claim of the '338 patent is valid, enforceable, and patent-eligible.

56. Solas and its predecessors in interest have satisfied the requirements of 35 U.S.C. § 287(a) with respect to the '338 patent, and Solas is entitled to damages for Defendant's past infringement.

57. Defendant has directly infringed (literally and equivalently) and induced others to infringe the '338 patent by making, using, selling, offering for sale, or importing products that infringe the claims of the '338 patent and by inducing others to infringe the claims of the '338 patent without a license or permission from Solas.

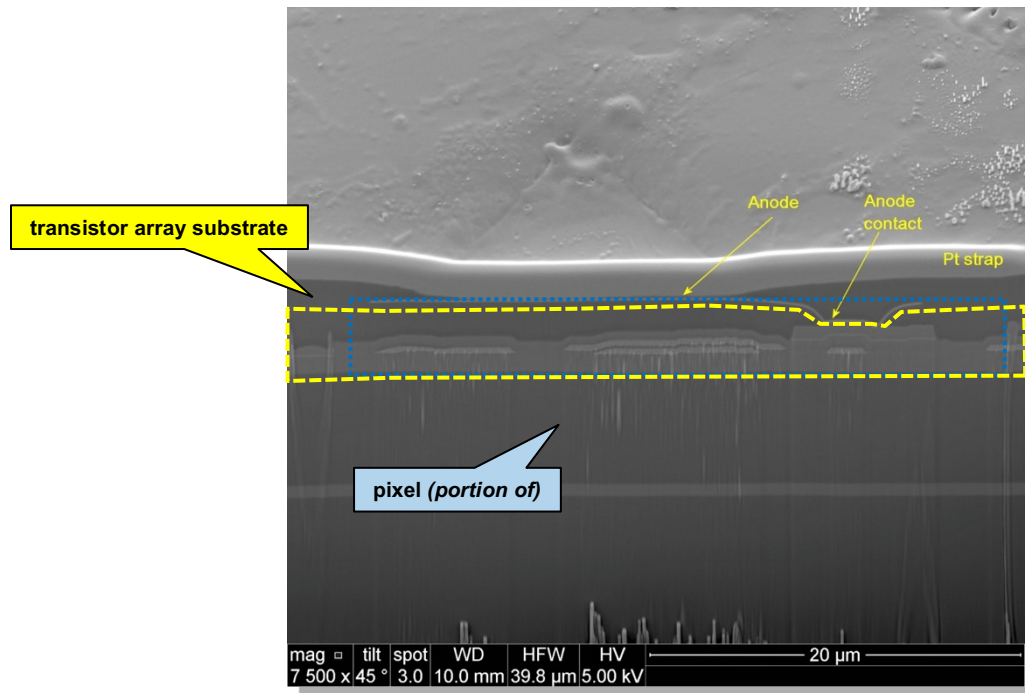
58. On information and belief, Defendant makes, offers for sale, and sells certain infringing products such as OLED display panels to customers, who integrate the infringing products into products that are sold to consumers, such as laptop computers and mobile phones. For example, claim 1 of the '338 patent claims a display apparatus as follows.

**[preamble] “A display device comprising:”**

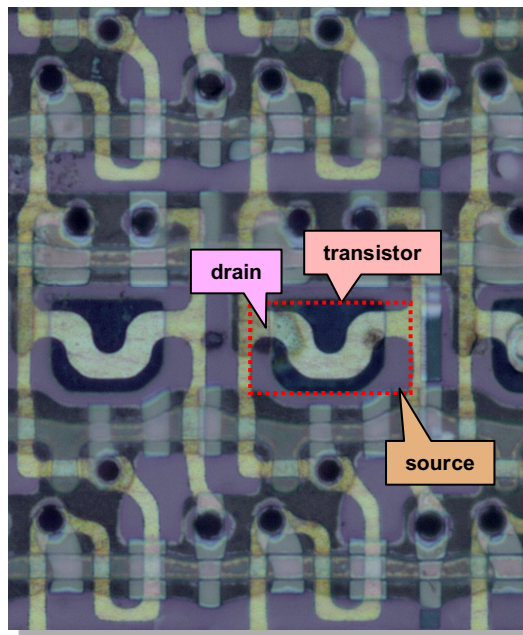
59. The Accused Products integrated into infringing products are “display devices” for displaying information in, for example, Google Pixel phones such as the Google Pixel 3XL (shown below) and in Samsung Galaxy S21-series of mobile phones.

**[1a] “a transistor array substrate which includes a plurality of pixels and comprises a plurality of transistors for each pixel, each of the transistors including a gate, a gate insulating film, a source, and a drain;”**

60. The Accused Products contains a transistor array substrate:

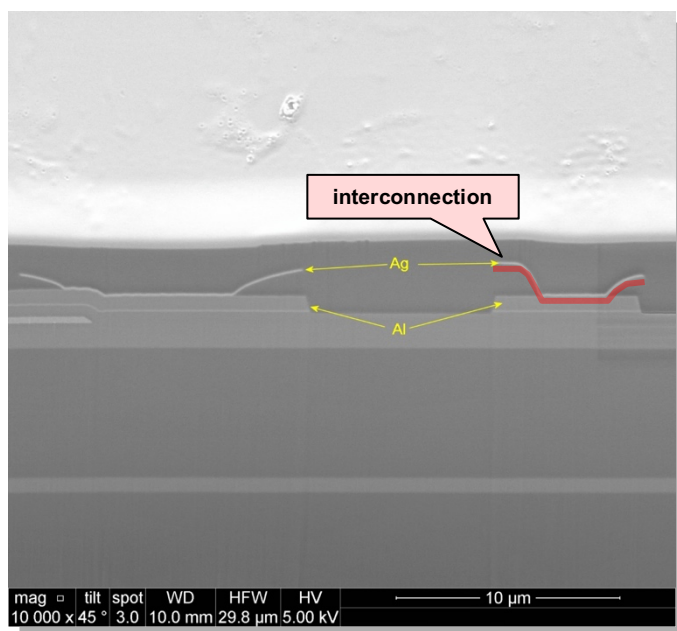


61. The transistor array substrate includes a plurality of pixels and comprises a plurality of transistors for each pixel, each of the transistors including a gate, a gate insulating film, a source, and a drain:

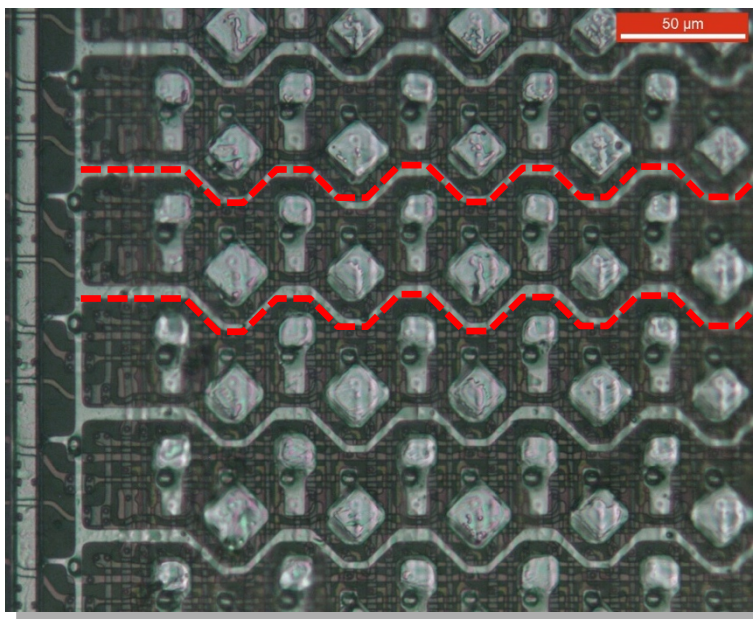


**[1b] “a plurality of interconnections which are formed to project from a surface of the transistor array substrate, and which are arrayed in parallel to each other;”**

62. The Accused Products include a plurality of interconnections which are formed to project from a surface of the transistor array substrate:



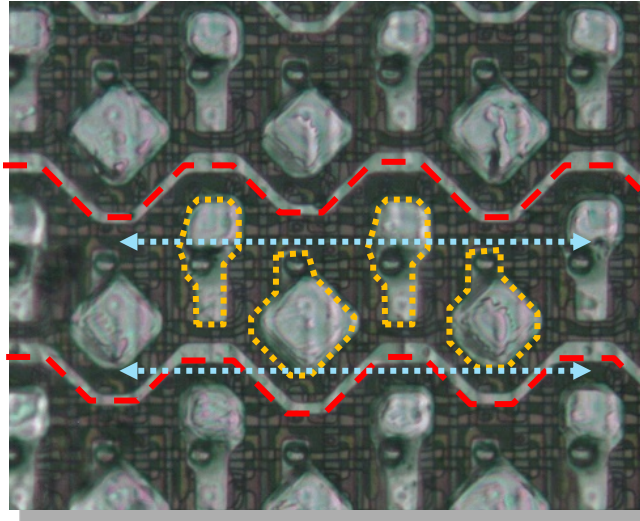
63. These interconnections are arrayed in parallel to each other:



[1c] “a plurality of pixel electrodes for the plurality of pixels, respectively, the pixel electrodes being arrayed along the interconnections between the interconnections on the surface of the transistor array substrate;”

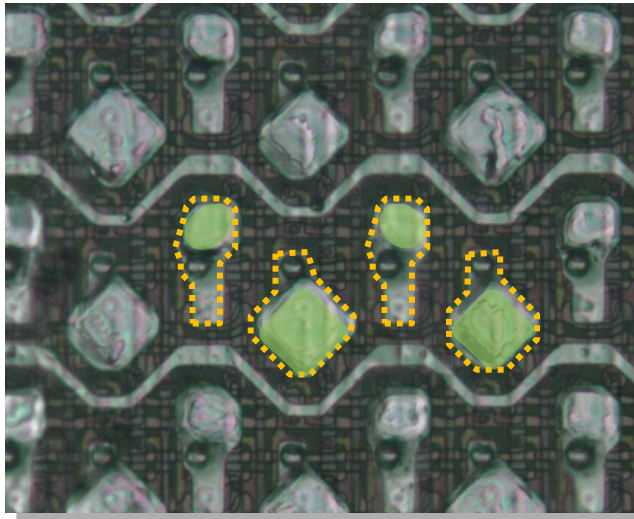


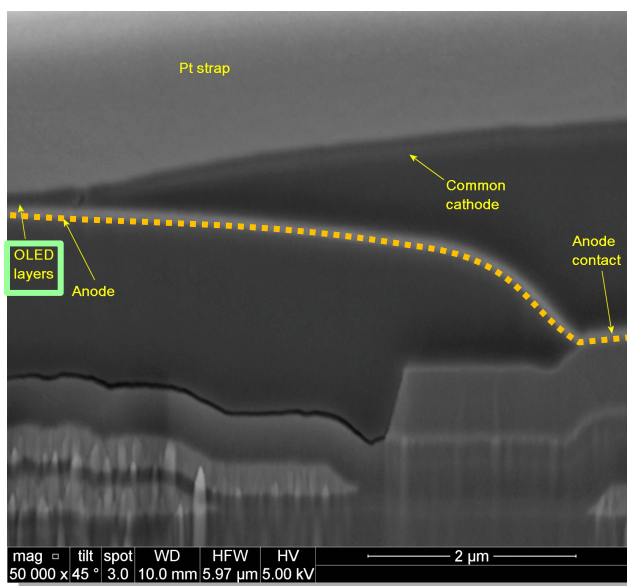
64. The Accused Products include a plurality of pixel electrodes for the plurality of pixels, respectively, the pixel electrodes being arrayed along the interconnections between the interconnections on the surface of the transistor array substrate:



**[1d] “a plurality of light-emitting layers formed on the pixel electrodes, respectively;”**

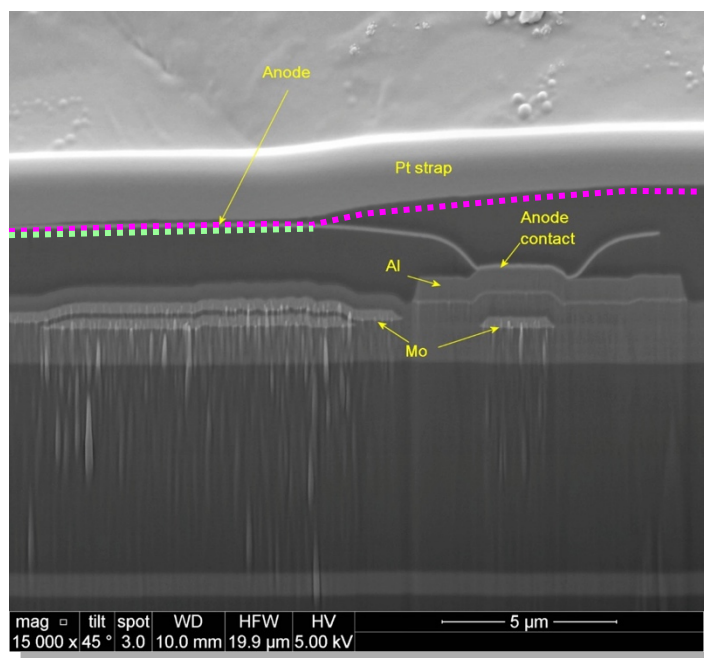
65. The Accused Products include a plurality of light-emitting layers formed on the pixel electrodes, respectively:





[1e] “and a counter electrode which is stacked on the light-emitting layers,”

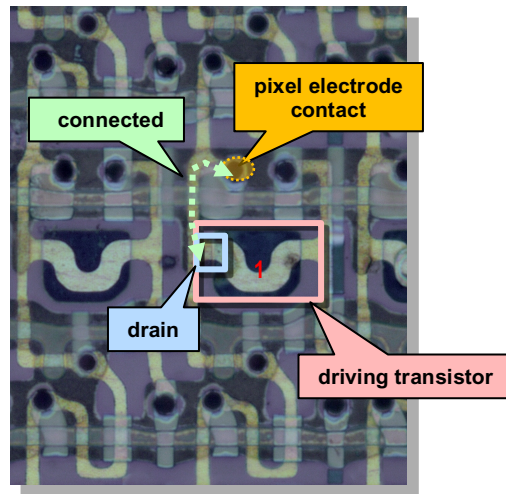
66. The Accused Products include a counter electrode which is stacked on the light-emitting layers:



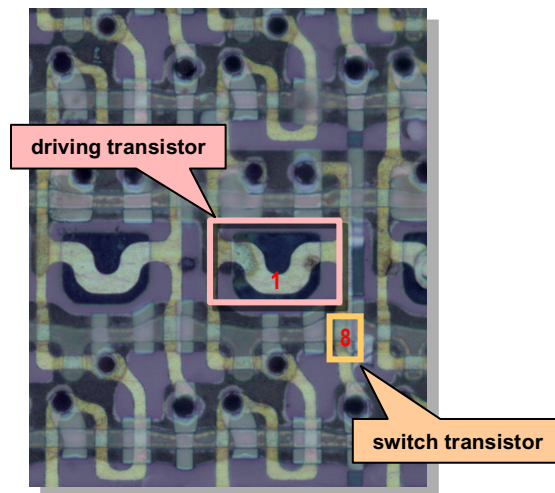
[1f] “wherein said plurality of transistors for each pixel include a driving transistor, one of the source and the drain of which is connected to the pixel electrode, a switch transistor which makes a write current flow between the drain and the source of the

**driving transistor, and a holding transistor which holds a voltage between the gate and source of the driving transistor in a light emission period.”**

67. In the Accused Products, the plurality of transistors for each pixel includes a driving transistor, one of the source and the drain of which is connected to the pixel electrode:

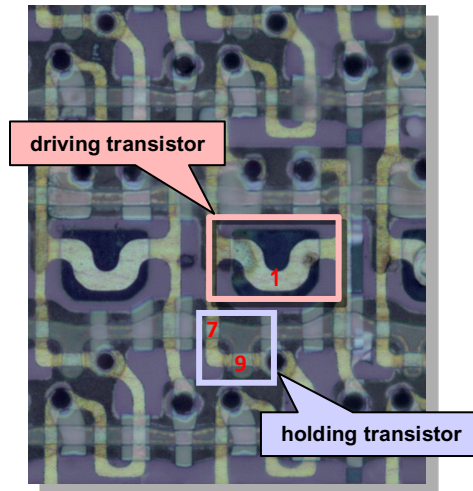


68. The plurality of transistors includes a switch transistor which makes a write current flow between the drain and the source of the driving transistor:



69. The plurality of transistors includes a holding transistor which holds a voltage between the gate and source of the driving transistor in a light emission period:





70. Defendant knowingly and intentionally induces and contributes to infringement of the '338 patent in violation of 35 U.S.C. §§ 271(b) and 271(c). Through the filing and service of this Complaint, Defendant has had knowledge of the '338 patent and the infringing nature of the Accused Products. On information and belief, Defendant has had knowledge of the '338 patent since around April 2015 and in any event no later than August 22, 2019, when Solas filed an amended complaint for patent infringement against Defendant in the Eastern District of Texas (Case No. 2:19-cv-152-JRG) alleging infringement of the '338 patent. Despite this knowledge of the '338 patent, Defendant continues to actively encourage and instruct its customers to use and integrate the accused products in ways that directly infringe the '338 patent. Defendant does so knowing and intending that its customers will commit these infringing acts. Defendant also continues to make, use, offer for sale, sell, and/or import the accused products, despite its knowledge of the '338 patent, thereby specifically intending for and inducing its customers to infringe the '338 patent through the customers' normal and customary use of the Accused Products.

71. Defendant has infringed multiple claims of the '338 patent, including independent claim 1. By way of example only, the Accused Product integrated into the Google Pixel 3XL

phones infringes an exemplary claim of the '338 patent, as in the description set forth above, which Solas provides without the benefit of information about the Accused Products obtained through discovery.

72. Defendant has known how the Accused Products are made and has known, or has been willfully blind to the fact, that making, using, offering to sell, and selling the Accused Products to its customers, who integrate the Accused Products into products imported into and sold within the United States, would constitute willful infringement of the '338 patent. Those products imported into and sold within the United States include, without limitation, Samsung Galaxy S21-series of phones, Apple iPhones, and Google Pixel phones.

73. Defendant has induced, and continues to induce, infringement of the '338 patent by actively encouraging others (including its customers) to use, offer to sell, sell, and import the Accused Products and devices that integrate the Accused Products. On information and belief, these acts include providing information and instructions on the use and integrate the Accused Products; providing information, education and instructions to its customers; providing the Accused Products to customers; and indemnifying patent infringement within the United States.

74. Solas has been damaged by Defendant's infringement of the '338 patent and is entitled to damages as provided for in 35 U.S.C. § 284, including reasonable royalty damages.

**Count 4 – Claim for infringement of the '450 patent.**

75. Solas incorporates by reference each of the allegations in paragraphs 1–74 above and further alleges as follows:

76. On June 6, 2000, the United States Patent and Trademark Office issued U.S. Patent No. 6,072,450, entitled "Display Apparatus." Ex. 4.

77. Solas is the owner of the '450 patent with full rights to pursue recovery of royalties for damages for infringement, including full rights to recover past and future damages.

78. Each claim of the '450 patent is valid, enforceable, and patent-eligible.

79. Solas and its predecessors in interest have satisfied the requirements of 35 U.S.C. § 287(a) with respect to the '450 patent, and Solas is entitled to damages for Defendant's past infringement.

80. Defendant has directly infringed (literally and equivalently) and induced others to infringe the '450 patent by making, using, selling, offering for sale, or importing products that infringe the claims of the '450 patent and by inducing others to infringe the claims of the '450 patent without a license or permission from Solas.

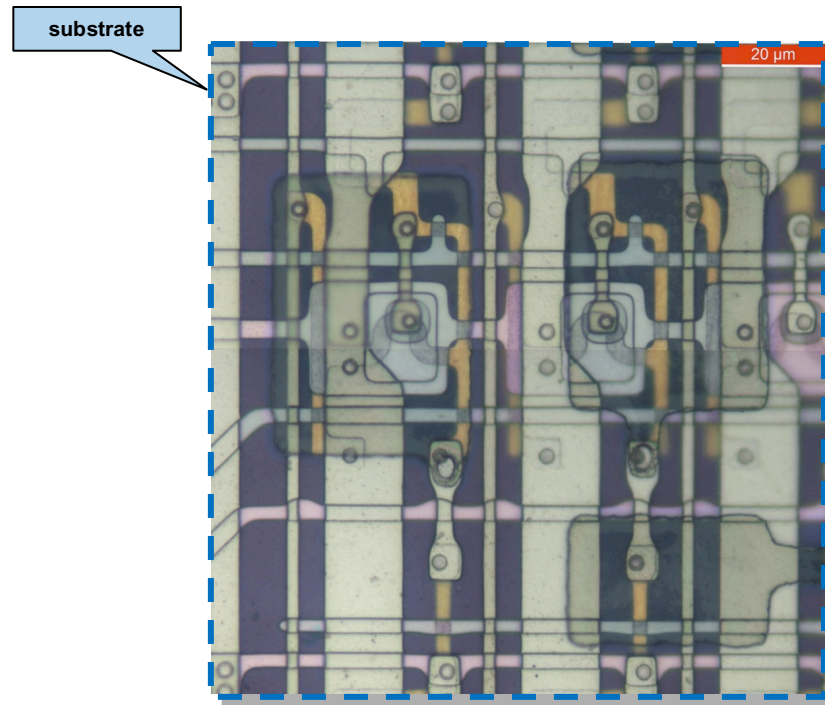
81. On information and belief, Defendant makes, offers for sale, and sells certain infringing products such as OLED display panels to customers, who integrate the infringing products into products that are sold to consumers, such as laptop computers. For example, claim 1 of the '450 patent claims a display apparatus as follows.

**[preamble] "A display device comprising:"**

82. The Accused Products integrated into infringing products are a "display apparatus" for displaying information in, for example, Apple MacBook Pro laptops (shown below).

**[1a] "a substrate;"**

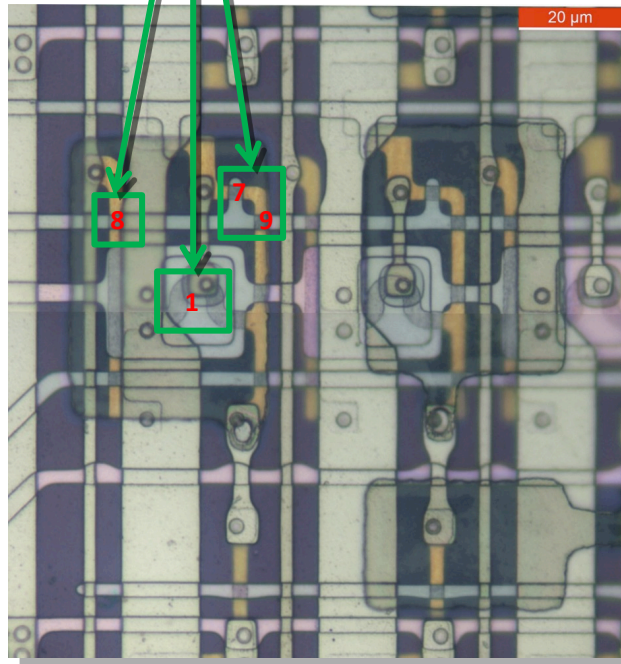
83. The Accused Products include Organic Light Emitting Diode (OLED) panels that include a polyimide substrate:



**[1b] “active elements formed over said substrate and driven by an externally supplied signal;”**

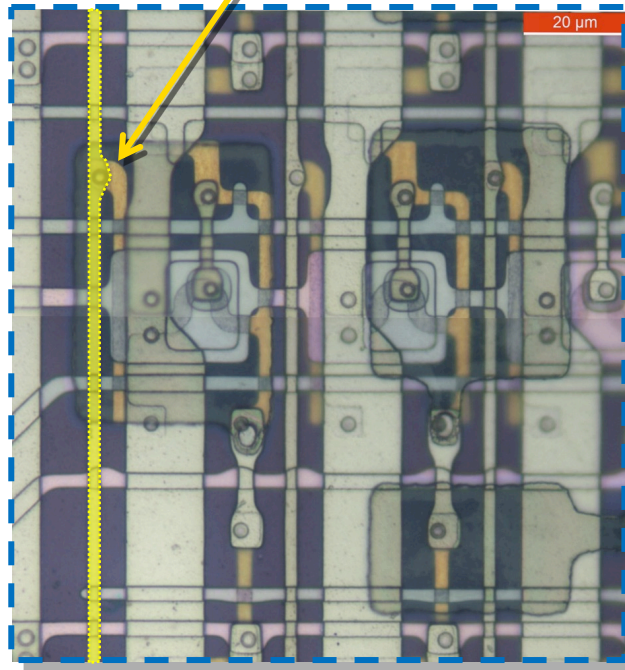
84. The Accused Products include active elements formed over the substrate:

active elements formed over said substrate and driven by an externally supplied signal;



85. These active elements are driven by an externally supplied signal:

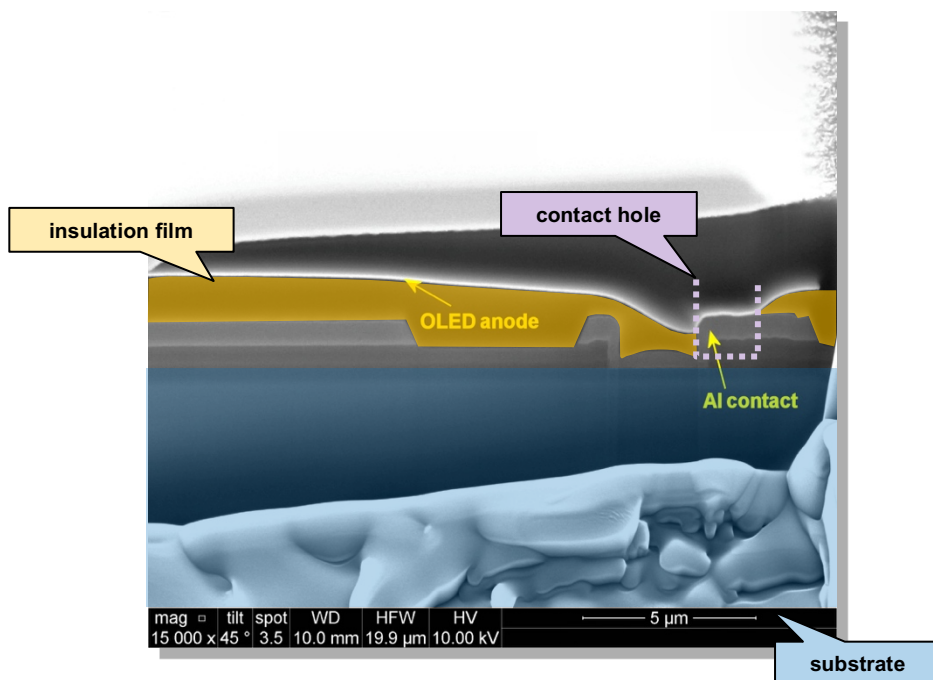
active elements formed over said substrate and driven by  
an externally supplied signal;



**[1c] “an insulation film formed over said substrate so as to cover said active elements, said insulation having at least one contact hole;”**

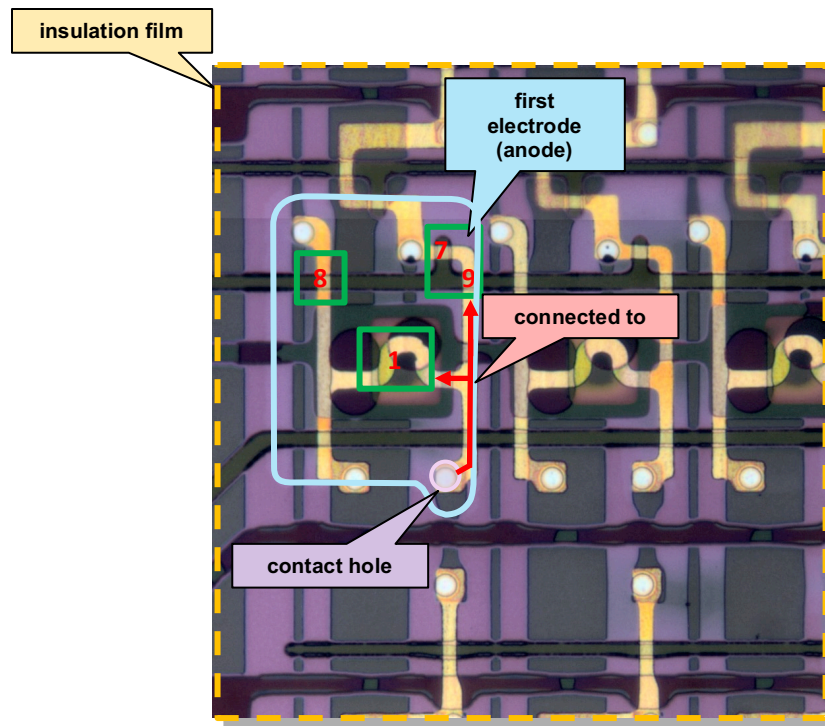
86. In the Accused Products, an insulation film is formed over the substrate, covers the active elements, and has contact holes:



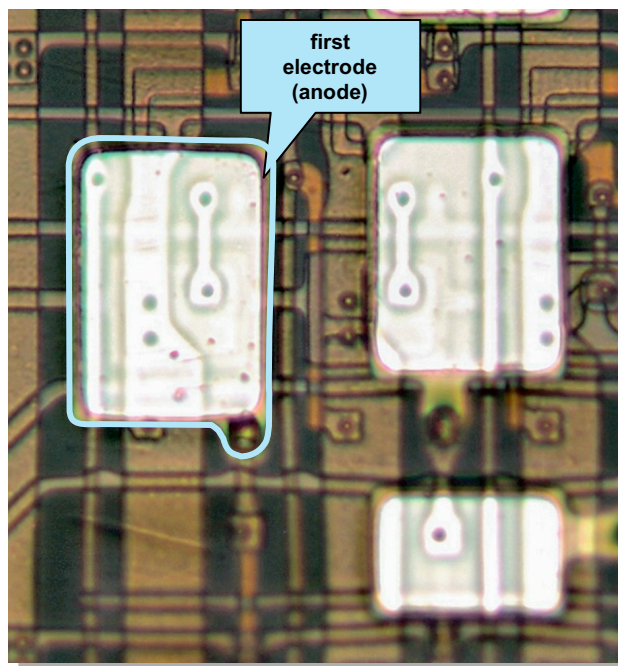


**[1d] “at least one first electrode formed on said insulation film so as to cover said active elements, and connected to said active elements through said at least one contact hole, said at least one first electrode being made of a material which shields visible light;”**

87. In the Accused Products, an electrode is formed on the insulation film, covers active elements, and is connected to active elements through contact holes:



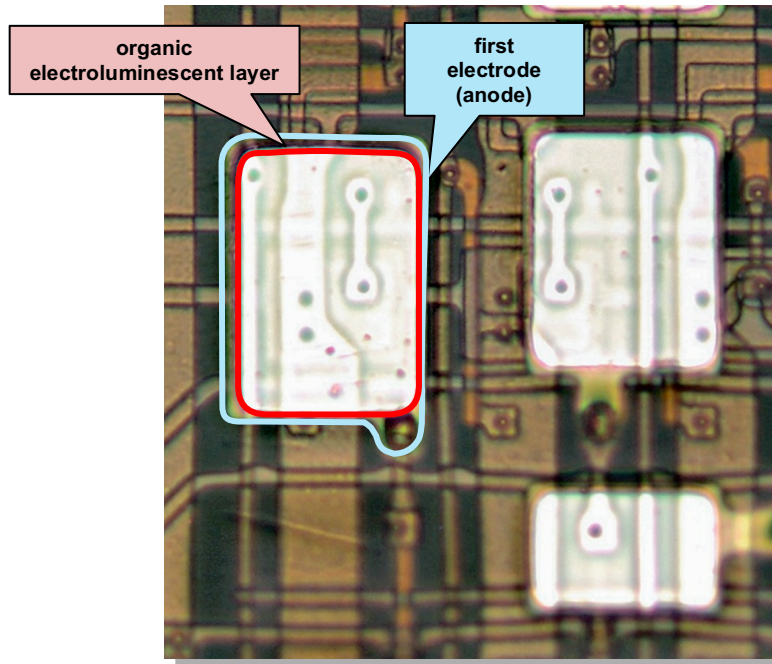
88. This electrode is formed of a material which shields visible light:



[1e] “an organic electroluminescent layer having an organic electroluminescent material formed on said at least one first electrode so as to cover said active elements and including at least one layer which emits light in accordance with a

**voltage applied to said at least one layer;”**

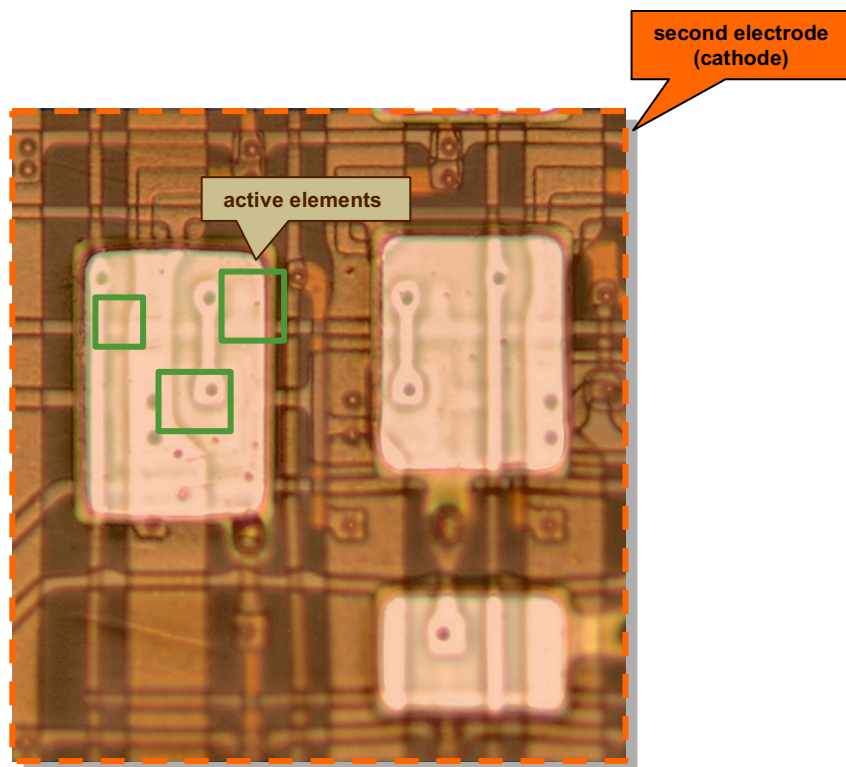
89. In the Accused Products, a layer of organic electroluminescent material is formed on the electrode, and covers active elements:



90. This organic electroluminescent layer emits in accordance with a voltage applied to the layer using the OLED cathode and anode.

**[1f] “and at least one second electrode formed on said organic electroluminescent layer which covers said active elements.”**

91. In the Accused Products, a second electrode is formed on the organic electroluminescent layer:



92. Defendant knowingly and intentionally induces and contributes to infringement of the '450 patent in violation of 35 U.S.C. §§ 271(b) and 271(c). Through the filing and service of this Complaint, Defendant has had knowledge of the '338 patent and the infringing nature of the Accused Products. On information and belief, Defendant has had knowledge of the '338 patent since around April 2015 and in any event no later than August 22, 2019, when Solas filed an amended complaint for patent infringement against Defendant in the Eastern District of Texas (Case No. 2:19-cv-152-JRG) alleging infringement of the '450 patent. Despite this knowledge of the '450 patent, Defendant continues to actively encourage and instruct its customers to use and integrate the accused products in ways that directly infringe the '450 patent. Defendant does so knowing and intending that its customers will commit these infringing acts. Defendant also continues to make, use, offer for sale, sell, and/or import the accused products, despite its knowledge of the '450 patent, thereby specifically intending for and inducing its customers to infringe the '450 patent through the customers' normal and customary use of the Accused

Products.

93. Defendant has infringed multiple claims of the '450 patent, including independent claim 1. By way of example only, the Accused Product integrated into the Apple MacBook Pro laptops infringes an exemplary claim of the '450 patent, as in the description set forth above, which Solas provides without the benefit of information about the Accused Products obtained through discovery.

94. Defendant has known how the Accused Products are made and has known, or has been willfully blind to the fact, that making, using, offering to sell, and selling the Accused Products to its customers, who integrate the Accused Products into products imported into and sold within the United States, would constitute willful infringement of the '450 patent. Those products imported into and sold within the United States include, without limitation, Apple Macbook Pro laptops.

95. Defendant has induced, and continues to induce, infringement of the '450 patent by actively encouraging others (including its customers) to use, offer to sell, sell, and import the Accused Products and devices that integrate the Accused Products. On information and belief, these acts include providing information and instructions on the use and integrate the Accused Products; providing information, education and instructions to its customers; providing the Accused Products to customers; and indemnifying patent infringement within the United States.

96. Solas has been damaged by Defendant's infringement of the '450 patent and is entitled to damages as provided for in 35 U.S.C. § 284, including reasonable royalty damages.

**Jury demand.**

97. Solas demands trial by jury of all issues.

**Relief requested.**

Solas prays for the following relief:

A. A judgment in favor of Solas that Defendant has infringed the '042 patent, the '615 patent, the '338 patent, and the '450 patent, and that the '042 patent, the '615 patent, the '338 patent, and the '450 patent are valid, enforceable, and patent-eligible;

B. A judgment and order requiring Defendant to pay Solas compensatory damages, costs, expenses, and pre- and post-judgment interest for its infringement of the asserted patents, as provided under 35 U.S.C. § 284;

C. A permanent injunction prohibiting Defendant from further acts of infringement of the '042 patent, the '615 patent, and the '338 patent;

D. A judgment and order requiring Defendant to provide an accounting and to pay supplemental damages to Solas, including, without limitation, pre-judgment and post-judgment interest;

E. A finding that this case is exceptional under 35 U.S.C. § 285, and an award of Solas' reasonable attorney's fees and costs; and

F. Any and all other relief to which Solas may be entitled.



Dated: March 22, 2021

Respectfully submitted,

/s/ Reza Mirzaie

Reza Mirzaie

CA State Bar No. 246953

Email: [rmirzaie@raklaw.com](mailto:rmirzaie@raklaw.com)

Marc Fenster

CA State Bar No. 181067

Email: [mfenster@raklaw.com](mailto:mfenster@raklaw.com)

Neil A. Rubin

CA State Bar No. 250761

Email: [nrubin@raklaw.com](mailto:nrubin@raklaw.com)

James S. Tsuei

CA State Bar No. 285530

Email: [jtsuei@raklaw.com](mailto:jtsuei@raklaw.com)

RUSS AUGUST & KABAT

12424 Wilshire Blvd. 12th Floor

Los Angeles, CA 90025

Telephone: 310-826-7474

T. John Ward, Jr.  
Texas State Bar No. 00794818  
Email: [jw@wsfirm.com](mailto:jw@wsfirm.com)  
Claire Abernathy Henry  
Texas State Bar No. 24053063  
Email: [claire@wsfirm.com](mailto:claire@wsfirm.com)  
Andrea L. Fair  
Texas State Bar No. 24078488  
Email: [andrea@wsfirm.com](mailto:andrea@wsfirm.com)  
WARD, SMITH & HILL, PLLC  
PO Box 1231  
Longview, Texas 75606-1231  
(903) 757-6400 (telephone)  
(903) 757-2323 (facsimile)

**ATTORNEYS FOR PLAINTIFF,  
SOLAS OLED, LTD.**